

Human Resources Research Office

Bibliography of Publications

As of 30 June 1966

CLEARINGHOUSE FOR FEDERAL SCIENCE AND TECHNICAL INFORMATION			
Hardcopy	Microfiche		
\$3.00	\$.65	237	pp <i>74</i>
/ ARCHIVE COPY			

DEC 21 1966
RECEIVED
A

Human Resources Research Office
Bibliography of Publications

As of 30 June 1966

September 1966

The George Washington University
HUMAN RESOURCES RESEARCH OFFICE
operating under contract with
THE DEPARTMENT OF THE ARMY

The Human Resources Research Office is a nongovernmental agency of The George Washington University, operating under contract with the Department of the Army (DA 44-188-ARO-2). HumRRO's mission is to conduct studies and research in the fields of training, motivation, and leadership.

Requests for information concerning items in the *Bibliography* or other aspects of HumRRO work should be addressed to the Director's Office or to the Director of Research of a division. The addresses are listed below.

Director, Human Resources Research Office, 300 North Washington Street,
Alexandria, Va. 22314

Director of Research, HumRRO Division No. 1 (System Operations), 300 North
Washington Street, Alexandria, Va. 22314

Director of Research, HumRRO Division No. 2 (Armor), Fort Knox, Ky. 40121

Director of Research, HumRRO Division No. 3 (Recruit Training), Post Office
Box 5787, Presidio of Monterey, Calif. 93940

Director of Research, HumRRO Division No. 4 (Infantry), Post Office Box 2086,
Fort Benning, Ga. 31905

Director of Research, HumRRO Division No. 5 (Air Defense), Post Office
Box 6021, Fort Bliss, Tex. 79916

Director of Research, HumRRO Division No. 6 (Aviation), Post Office Box 428,
Fort Rucker, Ala. 36360

Director of Research, HumRRO Division No. 7 (Language and Area Training),
300 North Washington Street, Alexandria, Va. 22314

The contents of this publication are not to be construed
as an official Department of the Army position, unless
so designated by other authorized documents.

Published
September 1966
by

The George Washington University
HUMAN RESOURCES RESEARCH OFFICE
300 North Washington Street
Alexandria, Virginia 22314

Distributed under the authority of the
Chief of Research and Development
Department of the Army
Washington, D.C. 20310

FOREWORD

The objectives of the Human Resources Research Office are to discover, develop, and apply human factors and social science principles and techniques so as to enhance the efficiency of both training and operational performance of military personnel. The chief product of such HumRRO work is information; thus, reporting the Army-supported research efforts to the military and technical civilian communities is a major endeavor.

To this end, the HumRRO Bibliography of Publications, As of 30 June 1966 has been compiled to provide as complete an accumulation of information about HumRRO research reporting as possible. It supersedes earlier HumRRO bibliographies, including the Bibliography of Publications, As of 30 June 1965, and the Interim Bibliography of Publications, 1 July to 31 December 1965.

Research of the Human Resources Research Office, a nongovernmental agency of The George Washington University, was initiated under Army Contract DA 44-109-QM-650, effective 30 July 1951; from 1 January 1956, it was conducted under Army Contract DA 49-106-QM-1; starting 1 September 1961, the current Army Contract DA 44-188-ARO-2 became operational. HumRRO research is conducted under Army Project Numbers 2J024701A712 01, Training, Motivation, and Leadership Research, and 2J014501B74B 02, Basic Research.

DESCRIPTION OF THE BIBLIOGRAPHY

Purpose

The ~~HumRRO Bibliography of Publications, As of 30 June 1966~~, has been compiled to provide as complete information as is feasible about HumRRO research publications and HumRRO research by-products. This information is intended primarily for use by Human Factors Research and Development personnel concerned with military problems, and Army personnel concerned with operational utilization of training and other research information and by-products. In addition, researchers and users of Research and Development in the other military services, other government agencies, and elsewhere concerned with training and other Human Factors Research and Development may find the *Bibliography* useful.

Scope

The FY 1966 *Bibliography* has been designed to serve as many reference requirements as possible. The reporting during FY 1966 is collected separately from the cumulative total output so that the user may quickly find what is new. In addition to HumRRO-published reports, FY 1966 and cumulative lists include professional and military publications and presentations by staff members. Abstracts have been provided for many items. A comprehensive and descriptive listing of research by-products has been developed. KWIC and author indexes are included.

Information added this year includes AD numbers, indicating items available to qualified users through the Defense Documentation Center (DDC) and, if appropriate, through the Clearinghouse for Federal Scientific & Technical Information, U.S. Department of Commerce.

Organization

The *Bibliography* has been organized into three main sections, the first of which is the list of FY 1966 items. The publications are listed chronologically under the research code name or under the type of research effort other than Work Unit (Exploratory Study, Technical Advisory Service, Basic Research) to which they relate, or under a general section if they are not directly related to a specific effort. In the general section, items are grouped according to whether they are HumRRO publications, professional and military publications, or professional presentations.

Part II is a cumulative listing of all material that has been published by HumRRO since its inception, including that published in FY 1966. Part II is arranged in the same order as Part I. In the alphabetical listing by Work Units, current research—that is, Work Units included in FY 1966 Work Program—is indicated by the word "ongoing" after the code name. Other types of research effort (i.e., Exploratory Studies and Basic Research Studies) are listed by number; Technical Advisory Service publications are arranged by date. Publications that are not specifically related to a single research effort are grouped in chronological order under the general section, which includes HumRRO publications and professional and military publications and presentations.

Part III is a listing of research by-products. Included in this section are such items as documents, materiel, manuals, and other materials that may be suitable for operational use by the Army. By-products range from specific training programs and technical manuals to training items for new equipment. They are briefly described under the research code names or general

category to which they relate, and if they originate in or with a publication, it is cited. If the information is available, reference is made to Army publication of the material.

Two appendices are included: Appendix A lists HumRRO reports in the numbered series according to both the current and earlier reporting categories. Appendix B lists the HumRRO research divisions and all the Work Units that have been assigned to them and have resulted in at least one publication.

Two indexes are also included, an author index and the key-word-in-context index, both of which are bound into the *Bibliography*. The key-word-in-context (KWIC) index contains bibliographic titles permuted and alphabetized on the basis of key words contained in the title. With this index the reader may find the titles that interest him by framing a question, extracting from it the key words, looking up the titles containing the key words or their synonyms, and using the reference code found with the title to locate the citation.

NOTES

Current designations for the HumRRO divisions are used in the *Bibliography*, without reference to name changes that have occurred over the years.

The publications of two divisions that are no longer operational are included: the Motivation, Morale, and Leadership Division was terminated in 1955 and the Psychological Warfare Division was terminated in 1956. Requests for information concerning publications of these divisions should be addressed to Director's Office, HumRRO.

The psychological associations frequently mentioned in the *Bibliography*, meet only once a year, so only the year date is given. These associations, and the abbreviations used for them throughout the *Bibliography*, are: American Psychological Association (APA), Eastern Psychological Association (EPA), Midwestern Psychological Association (MPA), Rocky Mountain Psychological Association (RMPA), Southeastern Psychological Association (SEPA), Southwestern Psychological Association (SWPA), and Western Psychological Association (WPA). The APA meets in September; all the other associations, in the spring.

Military personnel assigned in support of a research effort occasionally appear as one of the authors; no special note has been made where this is the case.

CONTENTS

	Section	Page
Part I: Publications and Presentations During FY 1966	A	3
Part II: Cumulative Listing of Publications and Presentations		
Work Units	B	11
Exploratory Studies	C	147
Basic Research Studies	D	151
Technical Advisory Service	E	157
General (Items Not Directly Related to Specific Elements in the Work Program)	F	159
HumRRO Publications		159
Professional and Military Publications		162
Presentations		167
Part III: Research By-Products		175
Appendices		
A Reports by Number		187
B Work Units by Division		191
Author Index		199
Key-Word-In-Context Index		203

**Part I: Publications and Presentations
During FY 1966**

BLANK PAGE

Work Units

AREA (Division No. 7)

Sub-Unit

"Simulation Exercises in Area Training," by Edward C. Stewart, paper read at annual Army Human Factors Research and Development Conference, Fort Bragg, N.C., October 1965; in conference proceedings, *Report of the Eleventh Annual Army Human Factors Research and Development Conference*, October 1965.

"The Simulation of Cross-Cultural Communication," by Edward C. Stewart, paper read at a symposium of the German Development Institute, Berlin, Germany, March 1966. II

"New Perspectives in Training and Assessment of Overseas Personnel," by Jack Danielian and Edward C. Stewart, paper read at First Counterinsurgency Research and Development Symposium, Institute for Defense Analyses, Arlington, Va., June 1966. II

CENTER (Division No. 3)

A Study of Category IV Personnel in Basic Training, Technical Report 66-2, by S. James Goffard, Morris Showel, and Hilton M. Blalek, April 1966. AD-681 737L

The Corrective Action Questionnaire: Development and Administration to Officers and NCOs, Technical Report 66-5, by Morris Showel, May 1966. AD-637 780

CIVIC (Division No. 7)

"Peasant Fatalism and Socioeconomic Innovation," by Arthur Niehoff, paper read at meeting of American Anthropological Association, Denver, November 1965. II

CONTACT (Division No. 7)

A Self-Instructional Tactical Language Course in Russian, Technical Report 65-14, Eugene H. Rocklyn, December 1965. AD-626 262 II

Development and Evaluation of a Tactical Mandarin Chinese Language Course, Technical Report 65-15, by Catherine Garvey and Eugene H. Rocklyn, December 1965. AD-629 444 III

ECHO (Division No. 6)

"Reduction of Helicopter Pilot Attrition Through Synthetic Contact Flight Training," by Paul W. Caro, Jr., paper read at meeting of APA, 1965. II

"Changes in Flight Trainee Performance Following Synthetic Helicopter Flight Training," by Paul W. Caro, Jr., and Robert N. Isley, paper read at meeting of SEPA, 1966; also issued as HumRRO Professional Paper 1-66, April 1966. AD-630 484 II

FIGHTER (Division No. 3)

"The Trumpet Sounds: Can Our Troops Be 'Battleproofed'," *Army Information Dig.*, vol. 20, no. 12, December 1965; based on a briefing by Richard Kern and Howard McFann given at the U.S. Army Infantry School, Fort Benning, Ga.

A Conceptual Model of Behavior Under Stress, With Implications for Combat Training, Technical Report 66-12, by Richard P. Kern, June 1966. AD-637 312 V

FORECAST (Division No. 1)

Sub-Unit

"Two Jobs for One in Electronic Maintenance," by Edgar L. Shriver and Robert C. Trexler, paper read at meeting of APA, 1965.

INGO (Division No. 5)

"Deriving, Specifying, and Using Instructional Objectives," Symposium, meeting of SWPA, 1966.

"In Defense of Instructional Objectives," by William H. Melching.

"Some Important Ways in Which Performance Objectives Can Vary," by Harry L. Ammerman.

"The Content Validity of Instructional Objectives," by Paul G. Whitmore.

"Instructional Objectives and Measuring Success of Instruction," by John A. Cox.

The Derivation, Analysis, and Classification of Instructional Objectives, Technical Report 66-4, by Harry L. Ammerman and William H. Melching, May 1966. AD-633 474

LOWENTRY (Division No. 6)

The Effect of Training on Accuracy of Angle Estimation, Technical Report 65-8, by T. Gary Waller and Robert H. Wright, August 1965. AD-619 958

The Effects of Map Scale on Position Location, Technical Report 65-9, by Ed Moon Edmonds and Robert H. Wright, September 1965. AD-623 396

MALT (Division No. 7)

"Some Psychological Aspects in Foreign Language Training," by Alfred I. Fiks, paper read at meeting of APA, 1965.

"Development of a Short, Practical, Programmed Vietnamese Course," by Alfred I. Fiks, paper read at annual Army Human Factors Research and Development Conference, Fort Bragg, N.C., October 1965; in conference proceedings, *Report of the Eleventh Annual Army Human Factors Research and Development Conference*, October 1965.

METHOD (Division No. 1)

"Effects of Written Verbalization and Timing of Information on Problem Solving in Programed Learning," by Robert J. Seidel and Iris C. Rothberg, *J. Educ. Psychol.*, vol. 57, no. 3, June 1966. II

MOSAIC (Division No. 1)

"Ten New Concepts for Maintaining Electronic Systems," by Edgar L. Shriver and Robert C. Trexler, paper read at meeting of Army Maintainability Group, Washington, July 1965.

NCO (Division No. 3)

Research on the Training of Noncommissioned Officers, A Summary Report of Pilot Studies, Technical Report 65-17, by Paul D. Hood, Richard P. Kern, and Morris Showel, December 1965. AD-631 208

RIFLEMAN (Division No. 3)

Development of Improved Rifle Squad Tactical and Patrolling Programs for the Light Weapons Infantryman, Technical Report 65-16, by Joseph S. Ward and N.I. Fooks, December 1965. AD-628 667

IV

ROCOM (Division No. 4)

Sub-Unit

"The Development of a Basis for a Common Core Curriculum," by Theodore R. Powers, paper read at meeting of APA, 1965.

ROTOR (Division No. 6)

"A Review of the Analysis of Visual Discrimination in Helicopter Control," by J.R. Thielges and W.G. Matheny, paper read at meeting of SWPA, 1966 (Subcontractor: Life Sciences, Inc.); also issued as HumRRO Professional Paper 4-66, June 1966.

AD-636 579

SAMOFF (Division No. 5)

A Model of Junior Officer Jobs for Use in Developing Task Inventories, Technical Report 65-10, by Harry L. Ammerman, November 1965. III
AD-624 048

Performance Aids for Junior Officers, Technical Report 65-11, by Harry L. Ammerman, December 1965. III
AD-629 304

Development of Procedures for Deriving Training Objectives for Junior Officer Jobs, Technical Report 66-3, by Harry L. Ammerman, May 1966. III
AD-633 167

Development of Technical Training Materials for Nike Hercules Junior Officers, Technical Report 66-6, by Edgar M. Haverland, June 1966. IV
AD-634 301

STINTRAC (Division No. 1)

Projected Manpower Needs, and Projected Training Requirements for Operators and Users of Future STINFO Systems, Technical Report 66-7, by C. Dennis Fink, Herbert B. Leedy, and John F. Hayes, June 1966. AD-635 132

UNIFECT (Division No. 4)

Interaction Content and Team Effectiveness, Technical Report 66-10, by Adie V. McRae, June 1966. I
AD-637 311

VIGIL (Division No. 5)

"Radar Target Detection as a Function of Search Area and Viewing Distance," by A.D. Wright, E.W. Frederickson, and J.L. Claflin, *J. Appl. Psychol.*, vol. 49, no. 4, August 1965. V

"Risk-Taking Set and Target Detection Performance," by Gary W. Evans, *J. Appl. Psychol.*, vol. 49, no. 4, August 1965.

Sources of Variability in Missile Unit Evaluations, Technical Report 66-13, by Robert D. Baldwin and Harry E. Anderson, June 1966. AD-636 776

Exploratory Studies

Exploratory Study 12 (Division No. 2)

"The Effects of Supervisory Threat on Decision Making and Risk Taking in a Simulated Combat Game," by Robert A. Baker, J. Roger Ware, G.H. Spires, and W.C. Osborn, *Behavioral Sci.*, vol. 11, no. 3, May 1966.

Exploratory Study 20 (Division No. 1)

An Experimental Evaluation of a Driver Simulator for Safety Training, Technical Report 66-9, by A. James McKnight and Harold G. Hunter, June 1966. AD-636 166

Exploratory Study 24 (Division No. 2)

Summary of Literature Review on Extended Operations, Consulting Report by Dennis Cannon, Eugene Drucker, and Theodore Kessler, December 1964.

Exploratory Study 43 (Division No. 1)

"The Formulation of Training Problems," by Harold G. Hunter, paper read at 17th Military Operations Research Symposium (Human Factors Working Group), U.S. Naval Post Graduate School, Monterey, Calif., May 1966.

Exploratory Study 44 (Division No. 5)

"Factors Influencing the Visual Detection and Recognition of Low-Altitude Aircraft," by A.D. Wright, paper read at meeting of SWPA, 1966.

Basic Research Studies

Basic Research 6 (Division No. 3)

"Group Consensus and Judgmental Accuracy: Extension of the Asch Effect," by Jack M. Hicks, Richard A. Monty, and Thomas I. Myers, *Psychonomic Sci.*, vol. 5, no. 4, 1966.

Experimental Studies of Sensory Deprivation and Social Isolation, Technical Report 66-8, by Thomas I. Myers, Donald B. Murphy, Seward Smith, and S. James Goffard, June 1966. AD-636 478

Basic Research 7 (Division No. 5)

"Elements of a Methodology for Prose-Learning Research," by Joseph F. Follett, paper read at meeting of RMPA, 1966.

Basic Research 9 (Division No. 2)

Pursuit Rotor Performance: 1. Effects of Reinforcing the Longer Intervals of Continuous Tracking Within Each Trial, Technical Report 66-11, by Richard W. Sheldon and John F. Bjorklund, June 1966.

Basic Research 11 (Division No. 5)

Measures of Ability and Programed Instruction Performance, Technical Report 65-12, by William H. Melching, December 1965. AD-629 443

The Influence of Practice Frames and Verbal Ability on Programed Instruction Performance, Technical Report 66-1, by William H. Melching and Frank B. Nelson, January 1966. AD-628 444

General¹

HumRRO Publications

Short-Term Memory: An Annotated Bibliography, Technical Report 65-13, by Donald Reynolds and Richard D. Rosenblatt, December 1965. (Div. 1) AD-627 394

Professional and Military Publications

"Disaster at Little Big Horn," by MG E.B. Sebree [USA Ret.], *Infantry*, vol. 55, no. 4, July-August 1965. (Div. 3)

"A Study of Backward Chaining," by John A. Cox and Lynn M. Boren, *J. Educ. Psychol.*, vol. 56, no. 5, October 1965. (Div. 5)

"Verbal Mediation in Reverse Association: The Role of Temporal Factors," by Richard A. Kulp and John A. Robinson, *Psychonomic Sci.*, vol. 3, no. 10, November 1965. (Div. 2)

"The Relationship between Vigilance and Monotonous Work," by Robert A. Baker and J. Roger Ware, *Ergonomics*, vol. 9, no. 2, March 1966.

"Learning to Lead," by MG Edmund B. Sebree, USA Ret., *Military Rev.*, vol. XLVI, no. 5, May 1966. (Div. 3)

Presentations

"Dimensions of Simulation," by Meredith P. Crawford, Presidential Address for Division of Military Psychology, read at meeting of APA, 1965. (Dir. Off.)

"Psychological Research in Electronic Maintenance Training," by W.A. McClelland, paper read at: Director of Electrical and Mechanical Engineers Study Period 1965, Arborfield, England, November 1965. (Dir. Off.)

"Men, Machines and the Software Middle Man," by Edgar L. Shriver, paper for meeting of Society of Technical Writers and Publishers, Huntsville, Ala., March 1966; also issued as HumRRO Professional Paper 3-66, April 1966. (Div. 1) AD-634 213

"Factors Influencing Utilization of Research Findings in Institutional Change," by J. Daniel Lyons, paper read at meeting of SEPA, 1966; also issued as HumRRO Professional Paper 2-66, April 1966. (Div. 1) AD-634 839

¹Items in this section either are not directly related to specific elements of the Work Program, or are related to several elements.

**Part II: Cumulative Listing
of Publications and Presentations**

WORK UNITS

AAA-Division No. 3 (Recruit Training)

Sub-Unit

Factors Affecting Efficiency and Morale in Antiaircraft Artillery Batteries

B

"Battery Effectiveness: Assessment of Comparative Performance," by Francis H. Palmer and Thomas I. Myers, *Antiaircraft J.*, November-December 1954.

This article describes the development of realistic measures to identify highly efficient and less efficient antiaircraft batteries and discusses the extent to which the several measures of performance are related. Under specific discussion are range of radar pickup, firing range scores, radar maintenance, artillery maintenance, defense commander's rating, and adverse personnel actions.

"Task Orientation to Studies in Group Productivity," by Francis H. Palmer, paper read at Social Science Research Conference on Small Group Research, April 1955.

"Crew Description Dimensions and Radar Crew Effectiveness," by Thomas I. Myers and Francis H. Palmer, paper read at meeting of APA, 1955.

This paper presents results pertaining to the group dimensions variables Harmony, Intimacy, Procedural Clarity, and Stratification of the Ohio State University's Crew Dimensions Description Questionnaire. It was shown that the four CDDQ scales are generally reliable; that with one exception the dimensions were empirically independent; and that leader and follower agreement was high on Procedural Clarity and Stratification but not on Harmony and Intimacy. The leader's stratification rating of the crew correlated highly with group effectiveness.

"Sociometric Choices and Group Productivity Among Radar Crews," by Francis H. Palmer and Thomas I. Myers, paper read at meeting of APA, 1955.

Radar crews of 8 to 13 men, from 40 antiaircraft batteries, were studied. Each crew consisted of three status individuals and subordinate members whose primary roles were operation of the equipment. The complex team process of identifying, acquiring, and locking-on an aerial target is the crucial point in battery effectiveness. The measure of productivity was the average range of pickup for each of the 40 crews over a three-month period of locking-on targets during 104 air strikes. Sociometric scores determined for each unit were a total score, a score for status individuals, and a score for subordinates. As measured in this study, social interaction was negatively related to group productivity.

"A Study of the Army Delinquent," by Francis H. Palmer, paper read at meeting of WPA, 1956.

"Leadership and Group Achievement," by Francis H. Palmer, *Adult Leadership*, vol. 5, no. 2, June 1956.

This article discusses research on leadership and leader training as related to multiple group goals and performance in the achievement of those goals. Although relating research in a military setting, some implications for nonmilitary contexts are included.

"Army Research on Individual and Unit Effectiveness," by Francis H. Palmer, paper read at Psychology Research 1956 Conference of the San Francisco Bay Area.

**ACCIDENT—Motivation, Morale, and Leadership Division
Studies of Morale and Motivation Factors Influencing Effectiveness
of Individual Soldiers: Off-Duty Driver Accidents**

Sub-Unit

Army Accident Reporting: Results of Some Exploratory Interviews, Interim report by Berton Winograd, September 1954.

AD-488 404L

B

**ACHILLES—Division No. 5 (Air Defense)
An Evaluation of the Maintenance Proficiency
of Fire Control System Technicians**

"On the Relationship Between Electronics Maintenance Proficiency and the Retention of Theory Oriented Electronic Information," by P.G. Whitmore, Jr., and W.L. Williams, Jr., paper read at meeting of APA, 1958.

A job sample performance test and a written test covering the Nike-Ajax IFC technicians' course were administered to 91 technicians immediately after graduation and to 98 with experience beyond graduation. Performance test scores increased as experience increased while written (theory oriented) test scores decreased. This decrease and the low correlations between written and performance test scores (for both groups) suggest that a portion of course content is irrelevant to the job. A drop in the electronic aptitude-maintenance proficiency correlation from the inexperienced to the experienced group suggests the need for job validated rather than training validated aptitude measures.

The Development and Use of a Performance Test as a Basis for Comparing Technicians With and Without Field Experience: The NIKE AJAX IFC Maintenance Technician, Technical Report 52, by W.L. Williams, Jr., and Paul G. Whitmore, Jr., January 1959. AD-212 663

To evaluate technical training courses given Nike-Ajax IFC maintenance technicians, two tests were developed: (a) a performance test, including troubleshooting and adjustment operations on a Nike-Ajax IFC system, and removal and replacement of a soldered-in component; (b) a written test, measuring retention of knowledges acquired by the technicians during school training. The tests were administered to 91 inexperienced and 18 package-trained technicians, and to 98 technicians with field experience (average, 19 months). The groups were compared on performance and on knowledge retained, using the inexperienced group's scores as

ACHILLES (Cont.)

Sub-Unit

baselines. With more field experience, performance scores increased and written scores decreased. The written and performance total scores and subscores showed little relationship, although the subtests of each test were highly interrelated. Most technicians at all experience levels failed to use good soldering techniques.

A General Note on the Development and Use of Job Performance Tests and a Detailed Description of Performance Tests for NIKE IFC Technicians, Research Memorandum by W.L. Williams, Jr., and Paul G. Whitmore, Jr., March 1959.

AD-478 738L

The development and utilization of performance tests within the context of technical training, and the content and administrative procedures of a series of performance tests developed for Nike IFC maintenance technicians are described.

Research By-Products resulting from this research effort are listed in Part III.

ACROSS-RETURN—Psychological Warfare Division

**Evaluation of Effects of Intercultural Contact Between U.S. Army
Personnel and Their Dependents and Foreign Nationals**

Some Effects of Overseas Duty on the Attitudes of American Troops Toward Host Populations, Staff Memorandum by Milton Jacobs and Louis Schatz, June 1954.

AD-480 317

ADCIVA--Motivation, Morale, and Leadership Division
Studies of Psychological Adjustment to the Requirements of
Military Life: Factors in Recruits' Adjustment

Sub-Unit

An Experimental Study of Modifications in Factors Influencing Recruits' Adjustment to the Army, Subcontractor's report by Richard Christie, Richard Maisel, Wallace Mandell, Irving A. Taylor, and Harold E. Yuker, 1954 (Subcontractor: Research Center for Human Relations, New York University).
AD-479 349

Transition From Civilian to Army Life, Technical Report 13, by Richard Christie, summarized by H.G. Osburn, October 1954 (Subcontractor: Research Center for Human Relations, New York University).
AD-58 040

A group of 555 men was chosen at random from among inductees at Fort Dix to study whether the success of transition from civilian to Army life is influenced by (a) reduced contact with family and civilian friends, (b) assignment to squads of high cohesiveness, (c) participation in positions of responsibility and leadership, and (d) instruction in techniques of adjustment to Army life. The results of the study confirm the hypothesis that (for single men) training far from home increases likelihood of successful adjustment to Army life. Hypotheses concerning the other three factors were not confirmed.

ANSCALE--Division No. 1 (System Operations)
Development of an Anxiety Scale for Use in Army Training Research

Anxiety Scales for Use in Army Training Research, Staff Memorandum by Joseph C. Hammock, June 1954.
AD-480 314

The adaption for military use of two forms of the A-Scale--the original true-false version of the Taylor Anxiety Scale, and a forced-choice modification constructed by Heineman--is described, and the procedure used in adapting them is presented. Data are then provided concerning some characteristics of the new scales, including norms for a basic training sample and reliability and "susceptibility to biased responding" for groups of different general aptitude. Copies of the revised scales are included.

Basic Training Achievement in Infantry Squads With Controlled Aptitude

Training Achievement in Basic Combat Squads With Controlled Aptitude, Technical Report 16, by Donald C. Findlay, Seymour M. Matyas, and Hermann Rogge III, January 1955.

AD-73 777

This study was designed to test (a) a method of raising the performance of basic trainees of below average intelligence, and (b) a method of raising the motivation-to-learn of trainees of all aptitudes. Low-aptitude men appeared not to benefit from training with high-aptitude men; their performance varied little, regardless of the number of high-aptitude men in the squad. However, squad competition and rewards decidedly increased the motivation-to-learn of trainees of all aptitudes, bringing low-aptitude men above the proficiency of average men in squads lacking incentive.

"Ability Grouping in Army Basic Combat Training," by Donald C. Findlay, Seymour M. Matyas, and Hermann Rogge III, J. Appl. Psychol., vol. 40, no. 6, December 1956.

This study investigated the effectiveness of heterogeneous ability grouping as a method of increasing proficiency in Army Basic Combat Training. In each of two companies, low-ability trainees were trained under three conditions of ability grouping. One group of low-ability men trained in squads containing only low-ability men (low), one group in squads containing high- and medium-ability men also (low-medium-high), and one group in squads containing high men also (low-high). In spite of a system of competition that made privileges dependent on squad performance, a proficiency test given at the end of eight weeks of training failed to show a significant difference between the learning of low-ability men who had high-aptitude men in their squads and those who did not. Achievement at all ability levels was unusually high, but low men who were trained in squads by themselves were just as proficient as low men who were trained in squads with higher ability men.

AREA-Division No. 7 (Language and Area Training)
Development of Concepts and Techniques for Area Training

(Ongoing) Sub-Unit

Cross-Cultural Problems of U.S. Army Personnel in Laos and Their Implications for Area Training, Research Memorandum by Alfred J. Kraemer and Edward C. Stewart, September 1964 (For Official Use Only). I
AD-480 364

"American Advisors Overseas," by Edward C. Stewart, Military Rev., vol. XLV, no. 2, February 1965. AD-623 040

Examples of Cross-Cultural Problems Encountered by Americans Working Overseas: An Instructor's Handbook, by Robert J. Foster, May 1965. I
AD-465 043

This handbook is designed to aid instructors in area training programs to give meaning and impact to their lectures by presenting real-life examples drawn from published and unpublished sources such as textbooks, case studies, and interviews. The examples are classified into seven categories of cross-cultural problems, and as an additional breakdown, cross-indexed by technical specialty, geographic location, and American values critical to effectiveness overseas. An extensive list of references is included to provide additional source and background material as well as to enable the reader to examine an illustration in context. For ease of handling and rearranging, the examples are printed for cutting into 5 x 7 cards.

"Simulation Exercises in Area Training," by Edward C. Stewart, paper read at annual Army Human Factors Research and Development Conference, Fort Bragg, N.C., October 1965; in conference proceedings, Report of the Eleventh Annual Army Human Factors Research and Development Conference, October 1965.

Special techniques and content are being developed to supplement current area training programs. Simulation was chosen as the technique, and exercises were developed whose content emphasized the American culture and the foreign, host culture. These evolved as a confrontation between American cultural assumptions and values and a contrasting set, conceived for training and research purposes only, called contrast-American assumptions and values. When accompanied by appropriate introduction and critique, these exercises hold promise of achieving their training objectives.

"The Simulation of Cross-Cultural Communication," by Edward C. Stewart, paper read at a symposium of the German Development Institute, Berlin, Germany, March 1966. II

"New Perspectives in Training and Assessment of Overseas Personnel," by Jack Danielian and Edward C. Stewart, paper read at First Counterinsurgency Research and Development Symposium, Institute for Defense Analyses, Arlington, Va., June 1966. II

Research By-Products resulting from this research effort are listed in Part III.

ARMORCOM—Division No. 2 (Armor)

Sub-Unit

Improvement of the Communications Proficiency of Armor Personnel

Simplification of the Panel Layout on Standard Series Tank Radios, Special Report 9, by Boyd L. Mathers, July 1957.

AD-139 056

I

The control panel of the standard series tank radio was modified in certain minor ways to evaluate the effect on operator performance. Armor trainees were trained and tested on sets with the eight most important controls coded in one of three ways: (a) painted a single distinctive color, (b) painted three different colors according to their function, or (c) numbered according to their order of use. Performance of these trainees was compared with that of control groups trained and tested on standard sets. Recommendation is made for coding the controls on tank radios.

Research By-Products resulting from this research effort are listed in Part III.

ARMORNITE—Division No. 2 (Armor)

Sub-Unit

Human Factors in Armor Operations Under Conditions of Limited Visibility

"Test-Retest Reliability of the Experimental Model of the American Optical Company Armed Forces Vision Tester," by Howard C. Olson, paper read at the 34th meeting of the AF-NRC Vision Committee, April 1954.

A Survey of Human Factors in Military Night Operations (With Special Application to Armor), Special Report 11, by Donald A. Gordon, November 1957. AD-149 357

Scientific and technical literature dealing with human factors in night military operations was reviewed, primarily for its applicability to problems of night Armor operations. Although the formulation of research problems in Armor night training is dependent upon the further stabilization of night operations doctrine, a number of studies are presently required, especially in (a) effectiveness of and countermeasures against various illuminants and (b) the development of proficiency measures for Armor units and personnel in performance of night operations.

Illumination and Terrain As Factors Affecting the Speed of Tank Travel, Special Report 12, by C.J. Bailey and Howard C. Olson, March 1958. AD-156 766

This study was conducted to obtain data on the travel time of tanks under various combinations of terrain and illumination conditions. Conditions included (a) five different kinds of terrain, (b) four different levels of natural illumination, and (c) five different kinds of artificial illumination. Two hundred tank commander-driver teams (drawn from six medium tank battalions at Fort Knox) drove M48 tanks over a test course; each team drove under only one level of natural illumination and one condition of artificial illumination. Tank speeds were most affected by terrain, followed by the position of the driver's hatch (open or closed), and the artificial illuminant employed; the effects of varying nighttime natural illumination were less marked

Recognition of Vehicles by Observers Looking Into a Searchlight Beam, Technical Report 49, by Howard C. Olson, Albert E. Goss, and William D. Voiers, July 1958. AD-200 848

Information useful for night combat tactics was gathered on how soon average observers facing a searchlight recognized tank-size vehicles approaching from the light. Variables included observer distance and position, and vehicle path and type. Similar recognition data were collected under conditions of darkness. When vehicle path and observer were near beam center, recognition generally occurred about 250 yards sooner than it did when vehicle path was across the beam from the observer; under the latter condition recognition generally did not occur until the vehicle neared or entered the beam (or almost as long as in darkness). Recognition range was 75 yards greater for tank than for truck; a masking noise had little effect on recognition range.

The Effectiveness of 90mm Tank Gun Fire Against the 18-Inch Searchlight (U), Technical Report 56, by Alfred J. Kraemer, June 1959 (CONFIDENTIAL). AD-309 249

To estimate probable effectiveness of fire from main guns of enemy tanks against 18-inch tank-mounted searchlights used to illuminate targets at night, experienced gunners fired at the mirrored image of a searchlight using main guns of M48 tanks. Ranges were 800 and 1500 yd. and firing positions were in beam center and 10° off beam center. First- and cumulative-round hit probabilities were derived from dispersion data collected by using large target panels and color-coded rounds of ammunition. Time needed for tanks to obtain a hit after light was turned on, and sensing capabilities for in-beam and out-of-beam firing positions were determined. (U)

"Victory Before Dawn," by Marvin Parrott, *Armor*, vol. LXVIII, no. 4, July-August 1959.

The Effects of Practice on the Performance of Basic Armor Skills at Night, Research Memorandum by Robert A. DeBurger, January 1961. AD-477 648L

ARMORNITE (Cont.)

Sub-Unit

An Appraisal of Some Night Training Problems in Armor Units of Seventh United States Army (U), Research Memorandum by Alfred J. Kraemer, May 1961 (CONFIDENTIAL). VII

"Localization of Peripheral Light Flashes," by Alfred J. Kraemer, David L. Easley, and Meredith J. Hall, paper read at meeting of MPA, 1961. XI

Absolute Identification of Munsell Hues Under Red Illumination, Research Memorandum (revised) by Kliem R. Miller, July 1961. IX

AD-632 690

Nine surface colors which are identifiable on an absolute basis in daylight were viewed under red light. Observers received practice in identifying them by number. Three different neutral gray masks were used to preclude identification on the basis of contrast. It was found that no more than four of these surface colors could be used together for coding under red light when absolute identification is required. Three groupings of four colors each can be used.

"The Heavens and the Fields," by Marvin Parrott, *Revue Militaire Générale*, no. 8, Paris, France, October 1961.

An Evaluation of Flash Localization Performance With the Fire Control System of the M48 Tank, Technical Report 78, by Alfred J. Kraemer, June 1962. X

AD-277 388

The object of this study was to evaluate the nighttime performance of tank gunners in localizing gun flashes with the fire control system of the M48 tank. Two night-simulated tests were conducted with 11 experienced and 20 inexperienced gunners, with these results: (a) In localizing 40 flash positions in a simulated periscope field of view, accuracy was fair within the reticle area but dropped off sharply outside it; (b) in laying the main tank gun against those flashes, accuracy was very poor. Error both in flash localization and in moving the gun controls contributed substantially to gun-laying error. It is concluded that the reticle of the M20 series periscopes (and presumably other periscopes and telescopes in which the reticle design covers only a small part of the field of view) is inadequate for localizing enemy gun flashes at night, and that the fire control system of the M48 series tank is inadequate for rapid laying of the main gun against nighttime targets that can be localized only by gun flashes.

Flash Localization and Reticle Design, Research Memorandum by Alfred J. Kraemer, David L. Easley, and Meredith J. Hall, October 1962; read at meeting of APA, 1961, under the title, "Gun Flash Localization as a Function of Reticle Design." XI

AD-287 639

The purpose of this study was to determine the accuracy with which simulated gun flashes could be localized in the field of view of a tank periscope with the aid of four different grid-type reticles. Each of four groups of enlisted men localized 48 single flashes using one of the four reticles. For three of the reticles data were also obtained from three groups of officers. Localizations were made by reading the azimuth and elevation of the perceived flash positions. No differences of consequence in performance were obtained between groups using different reticles. Enlisted men performed best with Reticle 4. Officers were found to localize more accurately than enlisted men, and it was suggested that the difference might be attributed to motivational factors.

The Effects of Two Types of Coordinate Systems on Localization of Peripheral Light Flashes, Research Memorandum by Alfred J. Kraemer and David L. Easley, April 1963; paper read at meeting of APA, 1961. XI

AD-404 478

Ten groups of subjects localized single flashes, viewing monocularly, and responding with a projection pointer. Flash sources were located within a 64-degree circular

field in a blacked-out room. One group saw only a fixation point. For another group only a cross was projected. Four groups were shown Cartesian coordinates, and four groups were shown polar coordinates. The density of the coordinate lines for the respective groups was increased by successive rectangular or polar bisection of the coordinate units, beginning with the cross. There were no appreciable differences in localization error between the groups which used one type of coordinate system and those which used the other. Introduction of the coordinate cross, and the bisection of the cross, led to successively smaller errors in localization, but further increases in line density did not. All groups made constant errors of localizing flashes closer to the visual axis than they actually were.

"The Effect of Flash Duration on the Localization of Peripheral Light Flashes," by David L. Easley and Myles A. Jackson, paper read at meeting of SEPA, 1963.

"An Evaluation of a New Reticle Design in Gun Laying Against Flashes," by David L. Easley and Myles A. Jackson, paper read at meeting of APA, 1963.

The purpose was to determine the accuracy of aiming a gun at night at flashes viewed through a grid type reticle which provided control movement input requirements. In general the results showed that experienced gunners employing the new reticle were on the average approximately 25% superior to the experienced gunners using the standard reticle. All of this gain could be attributed to reticle design. No appreciable differences in time were found between the groups. The results suggested additional methods, not related to reticle design, for improving gun laying against flashes at night.

The Effects of Observer Location and Viewing Method on Target Detection With the 18-Inch Tank-Mounted Searchlight, Technical Report 91, by Nicholas B. Louis, June 1964. AD-445 050

V

An experiment was designed to determine the effects on target detection of observer location and method of viewing in relation to several types of targets at selected distances. Data were collected from 336 observers stationed at the searchlight source and at various distances up to 160 yards from the light, along a line at approximately a right angle to the axis of the beam. Using the tank range finder, periscope, binoculars, or unaided vision, observers tried to detect and identify a jeep, tank, and APC at each of four distances. Observers farther away from the light source detected and identified more targets than observers close to the searchlight. Binoculars and, for the first 30 seconds, unaided vision were more effective than the range finder or periscope in detecting and identifying targets.

Operator Proficiency in Interpreting Ground Surveillance Radar Signals (AN/TPS-33), Technical Report 90, by Alfred J. Kraemer, David L. Easley, Arthur L. Miller, and Paul H. Stevenson, June 1964 (For Official Use Only). AD-442 607

XIII

To measure operator proficiency in identifying audio signals from the AN/TPS-33 ground surveillance radar, a test of 120 tape-recorded signals generated by representative military targets was administered to 43 trained operators. It was found that they could discriminate between personnel and vehicle targets. An experiment was run to determine whether operators can be trained to identify vehicles on the basis of signal characteristics unique to each vehicle type. After two days' training, 10 naive officer subjects learned to discriminate reliably between tracked and wheeled vehicles, although there were marked differences in operator aptitude. (U)

ARMORNITE (Cont.)

Sub-Unit

An Evaluation of a New Reticle Design System for Gunlaying Against Flashes, Research Memorandum by David L. Easley, November 1964 (Technical Advisory Service). AD-455 070

X

The purpose of the research was to determine the effectiveness of utilizing a grid-type reticle, graduated in turns of the azimuth and elevation controls of the M60 tank, for gunlaying against enemy gun fire at night. Using the experimental reticle in a simulated firing situation, six experienced and seven inexperienced gunners localized and laid an M60 tank gun on each of 40 flashes. Though no group differences were significant, these two groups of gunners performed somewhat more accurately, but laid less quickly on the average, than a third group, which used the standard reticle. In the simulated situation, performance was better than it was in a field study. Factors which may have operated in the field study to degrade performance are discussed.

Research By-Products resulting from this research effort are listed in Part III.

ARSUR—Division No. 2 (Armor)

A Survey of Training Problems in Armor

Technical Supplement to the Report on a Survey of Armor Training Problems, Staff Memorandum by Howard C. Olson, Boyd L. Mathers, Norman Willard, Jr., and Norman E. Willmorth, April 1955.

AD-480 320

A Survey of Training Problems in Armor, interim report (revised) by Edward J. Green, Boyd L. Mathers, Howard C. Olson, Norman Willard, Jr., and Norman E. Willmorth, June 1956.

AD-480 319

BASICTRAIN--Division No. 4 (Infantry)¹

Sub-Unit

Improved Training Procedures for Basic Combat Training (ATP 21-114)

- § *Some Problems of Basic Training Effectiveness*, interim report by Richard Snyder, September 1954. I

AD-479 107L

This report presents questionnaire data from 272 trainees representing five first-cycle training companies. Major findings of the survey, which are considered within the context of the new soldier's first Army training, indicated that the soldiers felt there was (a) lack of sleep and of time for their personal affairs, (b) poor coordination resulting in wasted time, (c) harsh treatment and harrassment, (d) ineffective leadership, and (e) lack of communication between trainees and cadre. The findings were interpreted as indicating organizational rather than individual problems.

- § *Achievement in Basic Training*, Staff Memorandum by George D. Greer and Benjamin W. White, July 1955. I

AD-479 069L

This report describes what was learned in eight weeks of basic combat training by a sample of Sixth Infantry Division trainees. Performance and written test results are reported and levels of knowledge at the outset of basic training are compared with those attained by the end of eight weeks. There was a gain of training in a Military Information Test (included in the report) consisting of 147 multiple-choice items. In-the-field performance test results indicate that some skills are learned by the vast majority of trainees during the course, while others are learned by only a small minority of the men. Suggestions regarding the use of this information in the planning and revising of the curriculum are made.

- § *Basic Military Information and Combat Effectiveness*, Staff Memorandum by George D. Greer, Jr., and Martha Myers, July 1955. I

AD-478 558L

Over 300 combat infantrymen in Korea, identified as fighters or non-fighters, were given a 300-item written Military Information Test covering combat-relevant information taught in Basic Combat and Advanced Individual Training. Sixty-four fighter/non-fighter pairs were matched on Aptitude Area I scores. Fighters were superior to non-fighters on the total test and on the operation, maintenance, and mechanics of weapons; preparation for and behavior during defense; and behavior during imminent or actual contact with the enemy. On more than 15% of the items, neither group possessed accurate relevant information. For the combined group, the highest level of information was in tactics; next highest, weapons; lowest, general subjects.

- § *Basic Infantry Skills Performance Test, ATP 21-114*, Staff Memorandum by George D. Greer, Jr., Finis W. Wilson, and Morton G. Wolpert, March 1956.

AD-479 070L

This research by-product is a performance achievement test of military skills and knowledge used as a criterion measure in a broad survey of Basic Training. For a detailed presentation of the total test station and item scores, and the test's reliability, refer to *Achievement in Basic Training*, Staff Memorandum by George Greer and Benjamin White, July 1955.

- § *"An Analysis of Certain Determinants, Characteristics, and Covariates of Basic Trainee Leadership Sociometric Data,"* by Darwin Palmer and George D. Greer, Jr., paper read at meeting of WPA, 1956.

This study was an attempt to determine the correlates of peer evaluations of existing and potential trainee squad leaders in the Army. Between 200 and 250 men in

¹This Work Unit was initiated at Division No. 3 (Recruit Training). The symbol § indicates an item prepared at Division No. 3.

each of 40 Basic Training companies were given batteries of tests at several points during training. It was found that trainee evaluation of their fellows was reliable; between the fourth and eighth week of Basic Training the average correlation for positive votes was .85, and for negative votes, .77. There were significant and consistent relationships of background and descriptive variables. It appeared that a sociometric test might be useful as a criterion in developing other squad leader selection instruments.

§ "An Analysis of Results of the Leader Behavior Description Questionnaire Technique Applied to Army Basic Training Companies and Platoons," by Richard A. Duryea and George D. Greer, Jr., paper read at meeting of WPA, 1956.

§ "Predictors, Descriptions and Correlates of Basic Training Delinquents," by George D. Greer, Jr., paper read at meeting of WPA, 1956.

This study deals with the personal, as distinguished from situational, variables related to delinquent behavior during the eight weeks of Basic Training. Over a six-month period nearly 10,000 trainees were categorized into four groups: three delinquent and one "normal." Members of all three delinquent groups had a history of lower socioeconomic associations, more civilian arrests, less formal education, and a greater frequency of "hooky playing" and running away from home as children. On the Army Aptitude Area I score, the mean score of the normal group was 108 and the average scores of the three delinquent groups were 101, 97, and 89. The findings of this study closely paralleled results of research on juvenile delinquents.

§ "Evaluation of Four and Eight Weeks Basic Training for Men of Various Intelligence Levels," by Victor B. Cline, Alan Beals, and Dennis Seidman, paper read at meeting of APA, 1956. II

Army inductees who received the usual eight weeks basic training course were compared with other trainees who received a condensed four weeks training cycle. On tests of a paper-pencil type, four-week trainees and eight-week trainees performed equally well. When tests involving performance-type activities such as assembling weapons and operating communications equipment were compared, high intelligence soldiers learned as much in four weeks as in eight but middle and low intelligence men did profit by the additional training. Soldiers of high intelligence learned just as much when trained alongside men of middle and low intelligence as when trained in special companies by themselves.

§ Evaluation of Four-Week and Eight-Week Basic Training for Men of Various Intelligence Levels, Technical Report 32, by Victor B. Cline, Alan Beals, and Dennis Seidman, November 1956. II

AD-114 111

This study was designed (a) to determine the effects on trainee performance of substitution of an accelerated four-week for the conventional eight-week basic training program, and (b) to examine the possibilities for more efficient utilization of high-aptitude personnel. Results indicated that, with regard to military information, all aptitude levels learned as much in the four-week course as in the standard eight-week course. On performance-type tests, middle- and low-aptitude men benefited from the full eight weeks' training. With respect to rifle marksmanship and physical fitness, the full eight weeks' training yielded better results at all intelligence levels. The high-aptitude personnel in the four-week training program acquired as much military information, and did as well on performance tests, as high-aptitude personnel in the eight-week course, and were superior to the normal-input eight-week trainees.

BASICTRAIN (Cont.)

Sub-Unit

- § **Basic Training Effectiveness: A Discussion of Instruction Centralization, the Training Curriculum and Achievement Evaluation, Staff Memorandum (revised) by George D. Greer, Jr., June 1957.** I

AD-482 180L

This paper is a discussion of three factors important to Basic Training in the Army: the organizational structure within which the training occurs, the curriculum, and the evaluation procedures necessary for affording indication of training effectiveness. The discussion is based on personal observations and on a survey in which 10,000 trainees, 40 officers, and 200 NCO cadre from 40 training companies were tested at three periods in a Basic Training cycle.

- Content Outline and Reference Data, ATP 21-114 (14 November 1958), Research Memorandum, August 1959.**

AD-482 181L

- The Development of a List of Minimal Training Goals for Basic Combat Training, Technical Report 67, by Albert Elkin, December 1960.** I

AD-248 634

The Basic Combat Training Program (ATP 21-114, Nov 58) was analyzed in relation to each of 17 supporting Army Subject Schedules. Discrepancies between the ATP and its referenced subject schedules were noted and revisions suggested. On the basis of this analysis, a list of minimum training goals was devised for each subject presented in the report. These suggested training goals cover the minimum knowledge and skills needed by the individual basic combat trainee.

- Effects of Training Response Mode, Test Form, and Measure on Acquisition of Semi-Ordered Factual Materials, Research Memorandum by Joseph F. Follett, April 1961.** II

AD-632 189

This report presents findings from the assessment of various programmed materials that suggest no difference between live and taped lecture, a significant advantage of read material over heard material, a significant advantage of self-paced reading over class-paced reading, and a significant advantage of the plain book format over the scrambled book format. Results also suggest that recognition form tests based on neo-rota contents might be used in lieu of recall form tests in that there is a generally stable relationship between the two test forms.

- Programmed Instruction: A Plan of Research, Research Memorandum by Thomas J. McCrystal, May 1961.** II

AD-632 568

Research By-Products resulting from this research effort are listed in Part III.

The Army as a Career for Existing and Potential Qualified Personnel

"Some Problems in the Retention of Army Enlisted Personnel," by Richard Snyder, paper read at Symposium, meeting of APA, 1958. I

"The Effect of Avoidance of Conflict on Decisions About Continuing in an Activity," by Judson Mills and Richard Snyder, paper read at meeting of WPA, 1959. III

On the basic assumption that persons faced with a difficult important decision will tend to avoid positive action, 80 Army recruits were studied to determine the frequency with which they might make a request either to change or continue an assigned activity. The results supported the prediction that persons in conflict about changing from one activity to another will change less frequently when they must make a request to change, than when they must make a request to continue.

"Effects of Uncertainty About Original Enlistment on Reported Change in Opinion Toward the Army," by Richard Snyder and Harry A. Burdick, paper read at meeting of APA, 1961.

From dissonance theory it was predicted that recruit opinions about the Army will tend to become more favorable following initial exposure to service as a function of the uncertainty about the original enlistment decision, and the importance of the decision. Subjects were 635 volunteer recruits. Uncertainty was inferred from responses to the question: "Would you have enlisted in the Army if there had been no draft?" Importance was inferred from expressed career interest. Results confirmed both predictions. The curvilinear relationship between reported opinion change and responses from which uncertainty was inferred is difficult to interpret plausibly by alternative theories.

Avoidance of Commitment and Need for Closure as Determinants of Behavior in Decision Situations, Research Report 12, by Richard Snyder and Judson Mills, June 1963. AD-478 519L III

Investigation was made of behavior in decision situations involving choice among mutually exclusive alternatives, in which action did not necessarily have to be taken. Three hypotheses were tested which concerned the influence of certain variables upon the tendency to avoid commitment to a specific course of action. Choices were recorded by subjects in a four-part questionnaire. Results were analyzed in terms of several variables and their experimental manipulations. It was concluded that a subject, in a situation in which he does not need to take action in order to know the outcome, will not be likely to express his real preference unless that preference is strong.

CENTER-Division No. 3 (Recruit Training)

Sub-Unit

Improvement of Effectiveness of Basic Combat Training Graduates

A Study of Category IV Personnel in Basic Training, Technical Report 66-2, by S. James Goffard, Morris Showel, and Hilton M. Blalek, April 1966.

AD-481 737L

Samples of men in Mental Category IV and men in categories of higher mental ability (I, II, and III), who were matched according to their Army component, were selected from companies in Basic Combat Training (BCT). Information about their backgrounds, aspirations, attitudes, aptitudes, and performances during and at the end of BCT was gathered from individual interviews, ratings, and Army records. The differences between the men in Category IV and those in Categories I, II, and III on most of these measures were small but statistically stable. The socioeconomic backgrounds of Category IV personnel tended to be poorer, and their performances in BCT were only slightly less adequate, and their attitudes toward military service were more favorable. Overlapping between the two groups was very extensive on almost every measure and on MOS assignment.

The Corrective Action Questionnaire: Development and Administration to Officers and NCOs, Technical Report 66-5, by Morris Showel, May 1966.

AD-637 789

This study was undertaken to develop a research instrument that would assess the degree of severity with which NCOs and company grade officers react to various types of situations in which trainees fail to perform properly. A preliminary version of a Corrective Action Questionnaire was developed, and it was administered to 131 subjects in order to develop information to revise the research instrument. Results of the trial administration suggested that: (a) more severe corrective action would be taken by older cadre who had spent more time in the Army, served longer in a training company, and had not attended college; (b) officers consistently proposed less severe corrective action than NCOs; (c) First Sergeants and those NCOs rated by their superiors as above average tended to be more severe than those NCOs rated as below average; and (d) officers and NCOs showed a high degree of agreement as to the relative seriousness of trainee performance failures. The Corrective Action Questionnaire as revised, may be expected to be an effective research instrument.

CHATTER—Psychological Warfare Division

Sub-Unit

**Factors Contributing to the Gaining of Attention, Understanding,
and Credibility in Communications**

Factors Affecting Credibility in Psychological Warfare Communications, Special Report 5,
by Earl R. Carlson and Herbert I. Abelson, July 1956.

AD-122 564

This report summarizes a survey of the factors that contribute to achieving credibility for a propaganda message. It is designed specifically for Army psychological warfare personnel and is intended to serve as a "primer on credibility" for the basic indoctrination of (a) the students and faculty at the Psychological Warfare School, (b) officers assigned to the staff of the Chief of Psychological Warfare, and (c) personnel in operational psywar units. As a primer, it provides only a starting point for more specialized inquiry in the field of communications credibility.

CINCO—Division No. 1 (System Operations)

**Procurement, Classification, and Training Problems at the Army
Intelligence School**

Procurement of Counter Intelligence Corps Trainees, Special Report 10, by Roy J. Jones
and Berton Winograd, October 1957.

AD-145 273

I

This study investigated two problems of procurement of trainees for the Counter Intelligence Corps: the setting of quotas for the basic training centers and the feasibility of extending the enlistment program to three years. Quotas as presently based on estimates of future strength of the training centers were compared with quotas based on actual input and on the number of men eligible for CIC training; quota-setting procedure based on the number of eligible men at each training center would be somewhat more accurate than the other methods. The proportion of recommended eligibles who were willing to extend their enlistment to three years indicates that a three-year enlistment requirement could be instituted without reducing the current quality standards.

CIVIC—Division No. 7 (Language and Area Training)
Guidelines for Civic Action Advisors

(Ongoing) Sub-Unit

Human Factors in Civic Action: A Selected Annotated Bibliography, Research Memorandum by Robert J. Foster, with the technical assistance of Charnel Anderson, Robert D. Nye, and Sheldon Smith, June 1963.

AD-412 657

This bibliography is designed to aid in educating and training United States personnel who will assist the military personnel of developing nations to play an active role in the socioeconomic advancement of their countries. It should also be of interest to personnel of agencies that are concerned with providing technical assistance to the developing nations. The chief goal of the compilation is to provide a selected list of items which a busy officer could reasonably expect to read in entirety within a few weeks before going overseas. Priority has been given to items that are nontechnical and thought-provoking, have relevance to most underdeveloped areas, are of article rather than book length, and emphasize the problems of working across cultural barriers. Basic divisions of the bibliography are—Philosophy of Civic Action and Foreign Aid, The Nature of Underdeveloped Countries, The Techniques of Planned Change, and Individual Effectiveness.

"The Process of Cross-Cultural Innovation," by Arthur H. Niehoff and J. Charnel Anderson, *International Developm. Rev.*, vol. VI, no. 2, June 1964.

"A Quantitative Approach to the Study of Directed Cross-Cultural Change," by Arthur H. Niehoff, *Amer. Anthropological Ass. Newsltr.*, vol. 5, no. 7, September 1964. II

A Selected Bibliography of Cross-Cultural Change Projects, Research Memorandum by Arthur H. Niehoff and J. Charnel Anderson, October 1964. II

AD-608 740

This report is a bibliography of case histories each of which describes an effort by a change agent, or agents, to introduce a new idea or technique into a culture other than his own. In compiling this selection, the normal range of technical aid projects was included, such as community development, agricultural extension, education, public health, and so forth. The cases are grouped by country or political unit in alphabetical order. Each citation is followed by a statement of the goal of the innovator and, when available, the size and time period of the project.

"The Primary Variables in Directed Cross-Cultural Change," by Arthur H. Niehoff, paper read at meeting of the American Anthropological Association, Detroit, November 1964. II

"Peasant Fatalism and Socioeconomic Innovation," by Arthur Niehoff, paper read at meeting of American Anthropological Association, Denver, November 1965. II

CLASSIC—Division No. 1 (System Operations)¹

Sub-Unit

**A Program of Research on the Activities and Training
of Guided Missiles Personnel**

A Study of Human Factors in the Operation of the Nike Ajax System, Part I: Training Problems and Requirements. Part II: The "Shooting Team"—Recommended Operating Procedures, Technical Report 51, by Randall M. Hanes and Robert A. Goldbeck, November 1958 (For Official Use Only) (Subcontractor: American Institute for Research). AD-207 097 I

As an initial step in standardizing training procedures and developing proficiency measures for guided missile personnel, a survey of training problems and an analysis of Nike-Ajax team procedures were undertaken. Data on school and on-site training were obtained from various Nike-Ajax installations and from the AAA & GM School. Operating procedures were analyzed through summarization and integration of the procedures which are followed by a number of Nike-Ajax batteries in the Pittsburgh, Chicago, and New York Areas. Training modifications are recommended, and a new set of standardized alert procedures was developed and is presented. (U)

A Study of Human Factors in the Operation of the Nike Ajax System, Part III: Technical Appendices, Research Memorandum by Randall M. Hanes and Robert A. Goldbeck, November 1958 (For Official Use Only) (Subcontractor: American Institute for Research). AD-482 102L I

Research By-Products resulting from this research effort are listed in Part III.

COLDSPOT—Division No. 1 (System Operations)²

Human Factors in Military Performance in Extreme Cold Weather

§ A Survey of Human Factors in Military Performance in Extreme Cold Weather, Research Memorandum by Norman F. Washburne, June 1960. AD-477 889L I

"Command Decision Making in the Far North," by Norman F. Washburne, paper read at meeting of American Sociological Association, September 1960. II

Cold Weather Operational Training of Infantry Forces in the Strategic Army Corps, Technical Report 86, by Norman F. Washburne, February 1964 (For Official Use Only). AD-432 095 II

This research was undertaken to study the training problems of infantry forces in the Strategic Army Corps during cold-weather operations. A research team was attached to CONUS forces to observe troop performance during the training and maneuver phases of Exercise LITTLE BEAR in Alaska during the winter of 1960. The data indicated areas of training content needing greater emphasis, and included suggestions regarding the context in which certain portions of the training should be given. (U)

¹This Work Unit terminated at Division No. 5 (Air Defense).

²This Work Unit was initiated in the Director's Office. The symbol § indicates an item prepared at Director's Office.

COMPRAC—Psychological Warfare Division

Sub-Unit

**Preliminary Investigation of Communication Practices in Pre-Maneuver
and Maneuver Situations**

*Soviet Military Defectors and Western Propaganda: A Pilot Study [U] [Information Report],
by Herman Turk and Alice Jwaideh, January 1955 (CONFIDENTIAL).*

Development of Training Procedures for Faster Acquisition of Perishable Tactical Information From Non-English-Speaking Prisoners of War

§ "A Feasibility Study of a Special, Machine-Taught Oral-Aural Russian Language Course," by E.H. Rocklyn and R.I. Moren, paper read at meeting of APA, 1960. I

Popularity of commercial, machine-taught, "do-it-yourself" foreign language courses is widespread. The effectiveness of such courses, especially in teaching speaking and understanding, is not usually evaluated. A special machine-taught course in speaking and understanding Russian was constructed to answer such questions as: Can basic skills in speaking and understanding foreign languages be programed and machine-taught? Can students learn to pronounce Russian adequately without human (live) instruction or assistance? Can course material be programed to produce and sustain student motivation? Administration and evaluation of this course supports the feasibility of machine-teaching foreign languages.

"A Limited Language for Obtaining Combat Information From POW's: A Pilot Study," by Richard I. Moren and Eugene H. Rocklyn, paper read at meeting of APA, 1960. I

In order for combat troops to obtain perishable tactical information from newly captured prisoners of war, knowledge of the enemy language is necessary. A limited language model or prototype to be used specifically for obtaining tactical information from newly captured prisoners of war was constructed in English. An equivalent Russian version was made, and students learned the English-Russian limited language in 20 days. In a simulated POW situation they questioned Russian-speaking personnel and were able to obtain information which could have been of value in actual combat, thus demonstrating the feasibility of the model in the Slavic language family.

"Problems in Programming an Intensive Oral-Aural Language Course," by Eugene H. Rocklyn, paper read at First Conference of Language Programmers, University of Michigan, April 1961. I

"An Approach to Automated Language Teaching," by Eugene H. Rocklyn, paper read at meeting of District of Columbia Psychological Association [May 1961]. I

"Language Programming for the Foreign Student," by Eugene H. Rocklyn, paper read at meeting of Speech Association of America, New York, December 1961. I

Development and Evaluation of Training Methods for the Rapid Acquisition of Language Skills, Research Report 9, by Eugene H. Rocklyn, Richard I. Moren, and Andre Zinovieff, January 1962. I
AD-271 642

This research explored the feasibility of machine-teaching enough of a foreign language to combat soldiers to enable them to obtain tactical information from newly captured prisoners of war. The course material used in the pilot study (Russian) was limited to tactical subject matter, presented by means of dual-track tape recorders, and arranged to build and sustain motivation and maximize learning efficiency without use of human instructors. The results of this study, as measured by both academic and job-simulated tests, support the feasibility of machine-teaching limited foreign language skills. The methodology developed has further possible application in foreign language teaching.

"Programming an Intensive Oral-Aural Language Course," by Eugene H. Rocklyn, paper read at meeting of SEPA, 1962. I

¹This Work Unit was initiated at Division No. 1 (System Operations). The symbol § indicates an item prepared at Division No. 1.

CONTACT (Cont.)

Sub-Unit

"The Evaluation of Self-Instructional Foreign Language Courses," by Eugene H. Rocklyn, paper read at meeting of the National Society for Programmed Instruction, San Antonio, April 1964.

"A Self-Instructional Program for Tonal Discrimination-Identification Lessons in Foreign Language Learning," by Eugene H. Rocklyn and Catherine Garvey, paper read at meeting of the National Society for Programmed Instruction, San Antonio, April 1964.

A Self-Instructional Tactical Language Course in Russian, Technical Report 65-14, Eugene H. Rocklyn, December 1965. AD-626 262

II

To enable the combat soldier to obtain perishable, tactical information from newly captured prisoners of war, a brief, self-instructional Russian language course was developed and evaluated. Materials obtained from questionnaires administered to combat-experienced personnel were reviewed and refined, resulting in a final version of course content that covered areas of information likely to be used in any offensive or defensive questioning situation. The course was taken by 13 students having language aptitudes ranging from 0 to the 97th percentile on the Army Language Aptitude Test. Upon completion, they were tested on content acquisition of all material in the course and on ability to use the material to obtain information from native Russians during simulated combat-area questioning. The results were a mean of 93% correct for speaking and understanding Russian and an 89% mean in translating answers given by the Russians, thus demonstrating the feasibility of such a course. The structure and questioning techniques seem effective in helping to elicit understandable answers from non-English-speaking personnel and may serve as a basis for development of similar courses in other languages.

Development and Evaluation of a Tactical Mandarin Chinese Language Course, Technical Report 65-15, by Catherine Garvey and Eugene H. Rocklyn, December 1965. AD-629 444

III

To meet the need for a short, self-instructional tactical language course in a Far Eastern tonal type language of potential military significance, a course in Mandarin Chinese was developed, by adapting the methods described in Sub-Unit CONTACT II with reference to a European type language (Russian). The purpose of the course was to enable combat soldiers to acquire perishable tactical information from newly captured POWs. The course was programed in the format of the Russian model with a major change in the addition of tone-discrimination and tone-production lessons. Six male students, high school seniors and graduates with varied language-learning aptitudes, took the course and completed it in 61 to 84 hours. Their final test scores, indicating ability to speak and understand all the assigned Chinese vocabulary, ranged from 55% to 98% correct. In a simulated questioning test, the mean percentage of correctly translated answers was 86%. Although low language-learning aptitude was associated with lower scores, the overall achievement appeared to be satisfactory.

Research By-Products resulting from this research effort are listed in Part III.

CULTECH--Division No. 7 (Language and Area Training)
Technical Training Across Cultural Barriers

Sub-Unit

The Achievement of Foreign Students in U.S. Army Technical Schools, Technical Report 65-7, by George H. Brown, June 1965 (For Official Use Only). AD-483 332

The research objectives in this study were (a) to obtain information on the academic achievement of foreign students in selected Army technical schools, (b) to assess the relationship between English language proficiency and academic achievement, and (c) to describe the viewpoints and recommendations of U.S. instructors on the problems involved in training foreign personnel. Information was collected from the academic records maintained by the U.S. Army Engineer, Signal, Ordnance, and Transportation Schools and from a survey of instructors with experience in teaching foreign students. The data thus obtained form the basis for the findings and conclusions presented in this report. (U)

DECISION--Division No. 3 (Recruit Training)
Factors Influencing Command and Tactical Decision Making

"Problems and Possibilities in the Use of Discussion for Organizational Decision Making," by Richard Snyder, paper read at meeting of American Speech Association, 1955.

This paper presents comments on some aspects of trends in research on "discussion," broadly defined as all processes of social communication that mediate group and organizational problem solving or decision making.

"The Influence of Cognitive Dissonance on Sequential Decisions," by Richard Snyder and Carl H. Rittenhouse, paper read at meeting of WPA, 1957.

An Investigation of Flexibility in Tactical Decision Making, Staff Memorandum by Richard Snyder, Carl H. Rittenhouse, and George E. Deane, December 1957. AD-480 316

Combat arms officers were given a tactical problem presented in stages; initial information strongly favored holding certain dominating terrain, while subsequent information favored withdrawal. Officers in a control group were required to make only a final decision. Data from the second of three experiments yielded significant relationships between the subjects' final decisions and their scores on tests of tolerance for dissonance, and between the decisions and the subjects' military rank. In the third experiment, only the relationship with rank was significant. Interpretations of these contradictory findings and some implications for training are discussed.

DESERT ROCK I—Motivation, Morale, and Leadership Division
Factors Influencing Performance of Troops Exposed to an Atomic Shot

Sub-Unit

DESERT ROCK I: A Psychological Study of Troop Reactions to an Atomic Explosion, Technical Report 1, by Peter A. Bordes, John L. Finan, Joseph R. Hochstim, Howard H. McFann, and Shepard G. Schwartz, February 1953 (For Official Use Only). AD-6 092

A major objective of this exercise was to evaluate psychologically the troops' reactions to the maneuver before indoctrination, after indoctrination, after the detonation, and after a lapse of about three weeks. Attitude research techniques as well as physiological measures were used to estimate (a) the effectiveness of the indoctrination procedures in increasing the troops' knowledge about atomic warfare and (b) the effects of the detonation, together with its accompanying consequences, on the troops' confidence in their ability to do well in A-bomb fighting. (U)

DESERT ROCK I: A Psychological Study of Troop Reactions to an Atomic Explosion—Additional Data Related to Attrition, Supplement to Technical Report 1, by Joseph R. Hochstim, March 1953 (For Official Use Only).

DESERT ROCK IV—Motivation, Morale, and Leadership Division
Factors Influencing Performance of Troops Exposed to an Atomic Shot

DESERT ROCK IV: Reactions of an Armored Infantry Battalion to an Atomic Bomb Maneuver, Technical Report 2, August 1953 (For Official Use Only). AD-16 451

To study the psychological reactions of troops who witnessed the detonation of an atomic weapon as part of a field maneuver, armored infantry troops were stationed in trenches four miles from ground zero. Some of the men had received limited indoctrination and others were given a special four-hour indoctrination the day before the maneuver. The men were measured before and after indoctrination and after the maneuver to determine the amount and kind of information they had learned regarding atomic effects, the ways in which the two groups reacted during the exercise, and the nature and extent of their fears and their self-confidence. The extent to which participant troops disseminated information to nonparticipants after returning to their home station was also measured. (U)

Characteristics of Troops With Varying Levels of Information About Atomic Effects - DESERT ROCK IV, Staff Memorandum, November 1953 (For Official Use Only). AD-482 185L

"Preparation of Soldiers for Atomic Maneuvers," by Shepard Schwartz and Berton Winograd, J. Soc. Issues, vol. 10, no. 3, 1954.

DESERT ROCK V—Division No. 3 (Recruit Training)

Sub-Unit

Psychological Study of Troop Reactions at an Atomic Explosion^{1, 2}

DESERT ROCK V: Reactions of Troop Participants and Forward Volunteer Officer Groups to Atomic Exercises, Information Report by Benjamin W. White, August 1953 (For Official Use Only).

AD-478 053

Questionnaires were administered to troops participating in an atomic test maneuver to ascertain what and how much the troops learned on these maneuvers and the degree to which the experience changed their attitudes toward atomic warfare. Reactions of volunteer officers who took forward positions during the test maneuvers were determined through interviews. Questionnaire and interview responses are reviewed in this report. (U)

Spread of Information Following an Atomic Maneuver, Information Report by Richard Snyder and Eli Saltz, February 1954.

AD-482 183L

This study investigated the effectiveness of word-of-mouth communication in spreading the information gained by three enlisted men who were observers at an atomic test explosion to other men of their home units. Questionnaire measures of information and attitudes about atomic effects, protective measures, and related topics were obtained from all battery members before the observers departed for the atomic test and again two weeks after they had returned. The observers' information and opinions were also measured at the end of their stay at the test site camp. As measured by the questionnaires, observer information gains were small, but there was considerable spread of information to the remaining members of the observers' units. Actively involving all members of home units in the advance preparation of observers produced important effects in increasing observers' information gains and in spreading information in the batteries.

Gain in Information in the DESERT ROCK A-Bomb Maneuvers, Staff Memorandum by Berton Winograd, March 1954.³

AD-482 184L

Findings from HumRRO studies on three different DESERT ROCK atomic-bomb maneuvers have been organized around the subject of troops' information gain from indoctrination on atomic weapons and warfare. In all three studies, the indoctrinations were evidently pitched at such a level that they produced about the same effects among troops of varying backgrounds and attitudes. Men who learned a substantial number of facts from the indoctrination were more likely than other men to become self-confident and willing to volunteer for potentially hazardous duty.

"Communication and Leadership Roles," by Richard Snyder, paper read at meeting of West Coast Society for Small Group Research, April 1955.

A theoretical formulation of "group roles" as related to the abstract model of a group regarded solely as a communication structure is presented. A review of some research related to role functions in this theoretical context is also included.

"Group Participation and Informal Status of Source as Determinants of Spread of Information in Organizational Groups," by Richard Snyder, paper read at meeting of APA, 1955.

¹Related research is reported under Work Unit YUCCA.

²The final HumRRO report originating in the DESERT ROCK series of atomic bomb maneuvers by the Army was *Experiences at Desert Rock VIII, Staff Memorandum*, by Robert D. Baldwin, March 1958. (Div. 1)

³This report, consolidating information from the DESERT ROCK I, IV, and V research studies, was prepared by the Motivation, Morale, and Leadership Division.

Synthetic Flight Training Programs and Devices

"The Importance of Training Requirements Information in the Design and Use of Aviation Training Devices," by W.W. Prophet, paper read at 16th Annual International Air Safety Seminar, Athens, Greece, November 1963.

"Reduction of Helicopter Pilot Attrition Through Synthetic Contact Flight Training," by Paul W. Caro, Jr., paper read at meeting of APA, 1965. II

The reduction of flight attrition in primary helicopter training through the use of a synthetic contact flight training device is described. The device, a one-man helicopter mounted on a ground effects machine through an articulated linkage which allows freedom of movement in six dimensions, preserves the handling characteristics and visual, auditory, and proprioceptive cues of the in-flight task. Two experimental groups received 3¼ or 7¼ hours device training, and their attrition rates during subsequent flight training were compared to that of controls. The synthetic training groups experienced lower attrition ($p < .01$) than the controls. No significant difference existed between experimental groups.

"Changes in Flight Trainee Performance Following Synthetic Helicopter Flight Training," by Paul W. Caro, Jr., and Robert N. Isley, paper read at meeting of SEPA, 1966; also issued as HumRRO Professional Paper 1-66, April 1966. II

AD-630 484

ENDORSE--Division No. 3 (Recruit Training)¹
Effects of Controlled Isolation on Performance

Sub-Unit

"The Counting of Auditory Stimuli," by Richard A. Monty, paper read at meeting of WPA, 1958. II

This study involved a complex discrimination task in response to an auditory stimulus with many parameters (such as loudness, pitch, frequency, speed of repetition, and numerosity) appearing against certain background noise. All parameters except numerosity were held constant. It was found that error was directly related to numerosity and that a reduction in error was attributable to knowledge of results and was itself positively related to numerosity.

"Influence of Instructions on Verbal Report of Visual Sensations Under Conditions of Reduced Sensory Input," by Donald B. Murphy, Thomas I. Myers, and Edward J. Kandel, paper read at meeting of WPA, 1958. II

The subjects (42 basic trainees of superior intelligence) were taken into a semi-lightproofed office and given instructions of a positive-suggestive or negative-suggestive nature with respect to the possibilities of actual visual sensations in semi- or complete darkness. The positive instruction group reported a significantly greater number of visual sensations than did the negative instruction group and the sensations reported were significantly more complex.

"The Reliability of a Modified Digit Span Test Procedure," by Thomas I. Myers, Gerald Burday, Lyman Forbes, and Jack Arbit, paper read at meeting of WPA, 1958. II

A modified digit span test was devised to assess ability to concentrate and recall. A scrambled arrangement of series length 5 through 10 was used, the total test consisting of six such blocks of scrambled items. There was no evidence that the "Random Digits" procedure adversely affected motivation; however, an inverse practice or "fatigue" effect was found. Reliability estimates for the "Random Digits" method were obtained separately for two groups of individually tested subjects. The obtained reliabilities were .86 and .79.

"Influence of Prior Verbalization and Instructions on Visual Sensations Reported Under Conditions of Reduced Sensory Input," by Edward J. Kandel, Thomas I. Myers, and Donald B. Murphy, paper read at meeting of APA, 1958.

Thirty Army trainees received verbalization experience on selected Rorschach cards; another 30 had no Rorschach pretest. Subsequently, half of the subjects in each group were instructed that it was normal to experience visual sensations in the absence of light; the other half were told that psychiatric patients experienced these visual sensations. Each subject then put on opaque goggles and lay on a bed in a darkened room. After ten minutes the subject was asked to describe the visual sensations he was actually seeing. The positive instructions resulted in significantly more reports of visual sensations than the negative instructions; prior verbalization had no effect.

"Some Basic Factors in Sensory Deprivation Research," by Thomas I. Myers, paper read at meeting of APA, 1958. II

This report is designed to analyze and describe some basic methodological distinctions deemed pertinent to the research area of sensory deprivation.

"The Effects of Misinformation Upon the Counting of Auditory Stimuli," by Richard A. Monty, Thomas I. Myers, and Donald B. Murphy, paper read at meeting of WPA, 1959.

Forty Army trainees were instructed to depress a telegraph key which emitted a continuous series of "blips" at the rate of 6.3 per second. Three phases of 30 blip items (20 to 70 blips per item) were administered to each subject. In the first phase

¹This Work Unit became a Basic Research study, first as PIONEER VI and subsequently as Basic Research Study 6. See BR-6 for additional items.

the experimental subjects were informed of the number of blips produced on each item, in the second phase misinformation was given on some of the items, and in the third phase no knowledge of results was given. The procedure was the same for the control group, except that on phase two they received correct information on all trials. Misinformation on the two blip items interspersed with correct information on the other items resulted in poorer overall accuracy of judgment for the experimental group. During phase three, which omitted all feedback to both groups, the inferior accuracy of the previously misinformed experimental group persisted.

"Effects of Sensory Deprivation Upon Reception of Complex Instructions: Development of a Measure," by Robert D. McDonald, paper read at meeting of WPA, 1959.

Two experiments were conducted to develop a simple motor task which would indicate the efficiency of reception of complex instructions in complete darkness after sensory or social deprivation. In the first experiment 144 Army trainees were administered 10 tape-recorded problems of five blocks each. Analysis of variance indicated significant improvement in performance over trials; other experimental treatments had no effect. More difficult conditions were established for the second experiment, but results indicated that task difficulty had not increased sufficiently.

Effects of Correct and Incorrect Knowledge of Results on Ability to Count Auditory Stimuli, Research Report 3, by Richard A. Monty, Thomas I. Myers, and Donald B. Murphy, March 1960.

AD-234 599

The purpose of this study was to develop a measure which would be useful in detecting changes both in utilization of correct information and in susceptibility to misinformation under conditions of partial or complete sensory deprivation. Two experiments are reported in which the effects of correct and incorrect feedback on ability to count rapidly produced auditory stimuli were studied. Correct knowledge of results contributed to better performance; misinformation contributed to disruption of counting ability; and both effects were evident over time in the absence of all feedback. The technique was considered useful as a measure of the effects of sensory deprivation upon a variety of variables.

Progress Report on Studies of Sensory Deprivation, Research Memorandum by Thomas I. Myers, Donald B. Murphy, and Seward Smith, March 1961.

AD-478 520L

Special dark, quiet cubicles were used as a means of effecting the isolated confinement of troop volunteers in a limited sensory environment. It was concluded that the seemingly innocuous and comfortable laboratory environment, which was characterized by a dearth of sensory events, was a stressful and formidable experience. Intellectual efficiency was temporarily impaired and subjects reported visual sensations of a highly repetitive nature.

"Notes on an Auditory Vigilance Technique," by Seward Smith and Paul M. Haas, paper read at meeting of WPA, 1961.

An auditory vigilance technique was developed for use in research involving sensory deprivation and social isolation. Subjects were placed separately in special rooms constructed to provide an average sound transmission loss of 40db to sounds from the outside. They took the test while lying on a bed in a quiet lighted room. The subject's task was to operate a Lindsley manipulandum by releasing it as quickly as he could each time he heard a short tone. The technique produced a vigilance effect and a significant performance deterioration over time, and also minimized the adverse effects of such factors as sensory thresholds, motivation, signal rate expectancy, and drowsiness.

"A Technique for Studying Attitude Change," by Donald B. Murphy and George L. Hampton, paper read at meeting of WPA, 1961.

**A Study of the Activities of Ordnance Fire-Control Maintenance Personnel
in the Field and the Relationship Between These Activities and Training**

Ordnance IFC Electronics Maintenance Personnel: Analysis of Activities With Implications for Training. Part I—M-33, Technical Report 31, by Ralph H. Kolstoe, Joseph C. Hammock, Gilbert B. Rozran, Robert S. Czeh, and Sylvia Hoke, September 1956.

AD-108 199

Information concerning the job in the field of third- and fourth-echelon electronics maintenance personnel in ordnance detachments (IFC M33) was sought in this study as a basis for relating school training as closely as possible to job requirements. Data were obtained on the background and training of the personnel studied, the job activities they performed, the equipment and procedures they used, and estimates of their proficiency.

Ordnance IFC Electronics Maintenance Personnel: Analysis of Field Activities With Implications for Training. Part II—T-38, Technical Report 37, by Ralph H. Kolstoe, Robert S. Czeh, and Gilbert B. Rozran, March 1957.

AD-158 177

Data describing the job done in the field by third- and fourth-echelon electronics maintenance personnel were obtained in 22 ordnance detachments (IFC T38) in the United States and overseas. Field maintenance activities and procedures, test equipment and manual usage, job proficiency, on-the-job training experiences, and the "value in maintenance" of school training subjects were analyzed for graduates of both basic and advanced electronics courses. Recommendations are made for emphasis on specific areas of training and for reorientation of training programs.

**Factors Related to Effectiveness and Ineffectiveness
of Individuals in Combat**

Incidental Observations Gathered During Research in Combat Units, Information Report by Robert L. Egbert, Robert V. Katter, and George D. Greer, Jr., October 1953. AD-478 562L

I

In the course of interviews with 650 infantrymen recently engaged in Korean combat, seven continuing problem conditions were noted: (a) Many troops never become offensive minded; (b) at the squad and platoon levels, leader-follower contacts sometimes fail unnecessarily; (c) the foot soldier often does not have a sufficient understanding of the ongoing battle situation; (d) some troops have not been well trained in problems specific to their combat situations; (e) squad members frequently do not know how much they can count on the men around them; (f) the weapon that inspires the most individual confidence is often not the weapon the man carries into combat; and (g) breakdown in combat communications is sometimes paid for with loss of life.

"A Study of the Characteristics of Successful and Unsuccessful Men Working in Situations of Extreme Stress," by Robert L. Egbert, paper read at meeting of APA, 1954.

I

The papers in this symposium covered the methodological considerations in the selection, testing and analysis of results of fighter (men who demonstrated good combat behavior) and nonfighter (men whose combat behavior was reported as inadequate) personalities. Ten major areas in which fighters were superior to non-fighters were found to be general intelligence, emotional stability and psychological soundness, masculinity, physical good health, the "doer" syndrome (fighters are doers, nonfighters are non-doers), socioeconomic level, stable home life with stronger affectional ties with parents, social acceptance by peers, leadership syndrome, and social responsibility.

"Profile of a Fighter," by Robert L. Egbert, Infantry Sch. Quart., October 1954.

I

Groups of men actively engaged in combat in Korea were interviewed. On the basis of eyewitness accounts, 310 men were selected who had either performed well in repelling final enemy attacks, or whose performance in the same action was inadequate. Differences revealed by 28 personality and intelligence tests clearly distinguished the fighter from the nonfighter; the numbers were roughly equal.

"Invariance of Motivational Measures Derived by Factor Analysis," by Tor Meeland, paper read at meeting of WPA, 1956.

II

In the criterion development of a motivational measure of attitude structure, the two best items from nine factors derived from a college student sample were presented to 300 subjects in Korea in a Preference Test which paired each item with every other one. In spite of the extreme differences in the samples used and the smaller number of variables included for the soldier sample, there were some noteworthy consistencies in the factor structure of attitude (motivation) measures. Although some useful data were lost when the attitude measurement was restricted to a Preference Test source, the simple structure obtained in the soldier sample was so good it seemed profitable to pursue this area with the easily administered Preference Test.

FIGHTER (Cont.)

Sub-Unit

- "Relationship of Life History, Family Background, and Intelligence Data to Performance in Situations Employing Height, Fire, Distraction, Shock, Dark, and Noise as Sources of Stress,"** by Jerald N. Walker and Tor Meeland, paper read at meeting of WPA, 1956. II

This study was concerned with an examination of performance under stress (effective and ineffective combat performance) as related to life history data and intelligence. The sample consisted of 110 subjects who had no prior military service and had just completed their eight weeks of Basic Training. A Stress Index was developed from a composite score of ten measures of performance under a variety of stressful situations. It was found that a specific identifiable life history pattern related to how an individual would perform under stress; however, the results were specific to the particular stress situations in this study.

- "Dimensions of Stress Performance in Field and Laboratory Situations,"** by Tor Meeland and Robert L. Egbert, paper read at meeting of APA, 1956. II

One hundred soldiers who had completed a 29-mile march and had very little sleep for two nights were subjected to three days of stress performances in the laboratory and in the field, including fighting oil fires, jumping off a 30-foot tower, performing in the dark, combat-in-cities, and so forth. Fifty performance scores and stress indices were factor-analyzed and ten factors rotated to simple structure. The factors are related to: intelligence, accuracy, stress index, eosinophil level, dark, fire fighting, pulse-rate change, autonomic efficiency, and two residuals.

- Detailed Results of the FIGHTER I Assessment Program, Supplementary Appendices to Special Report 13, Staff Memorandum** by Robert L. Egbert, Tor Meeland, Victor B. Cline, Edward W. Forgy, Martin W. Spickler, and Charles Brown, February 1957. I

These appendices contain results of questionnaire-type personality tests for the total sample; content analysis groupings of discriminating items from MMPI and CPI; scoring of clinical interviews; results on life history inventory; objective test results; results of picture preference tests; write-a-story test (modified TAT); multiple choice rating forms; results of word suggestion inventory; empirical fighter scales (interest opinion questionnaires), scoring key, and item sources; and case histories of two fighters and two nonfighters.

- Observations of Seven Armed Forces Specialized Training Schools, Staff Memorandum** by Tor Meeland and Morris Showel, February 1957. III

Information was gathered from a series of trips to special training schools in continental United States and Alaska concerning aims, curricula, and procedures. Special elements that contribute to training for combat effectiveness were identified and the extent to which this research could be linked with existing training research programs was appraised. Several characteristics are common to all the schools: the volunteer status of participating enlisted men, the emphasis on physical fitness, the use of fear-provoking situations to build confidence, and the teaching of specific skills to produce competence in combat.

- "Influence of a Partner on Tolerance for a Self-Administered Electric Shock,"** by Irwin Miller, Stanley B. Benson, Dennis Seidman, and Tor Meeland, *J. Abnorm. Soc. Psychol.*, vol. 54, no. 2, March 1957; paper read at meeting of WPA, 1956. II

In a study of the influence of a partner on tolerance to stress, subjects were tested on their maximum tolerance for a self-administered electric shock in two settings: one in which they were alone, and one in which a partner also appeared to receive the shock. Results indicate that tolerance to electric shock was significantly increased when a partner was perceived as sharing the stress than when the subject was alone.

FIGHTER (Cont.)

Sub-Unit

"Reactions of Men Under Stress to a Picture Projective Test," by Victor B. Cline, Edward I
Forgy, Robert Egbert, and Tor Meeland, *J. Clin. Psychol.*, vol. 13, no. 2, April 1957.

Near the close of the Korean War 310 fighters and nonfighters were given a week's assessment. This involved administering 86 separate tests and procedures one of which was a TAT-like picture projective test. Using a special scoring system, four psychologists independently analyzed 100 test protocols. Fair rater agreement was obtained with the median interrater correlation being .72; however, differences between fighters and nonfighters were only at the chance level. This was in sharp contrast to such test instruments as the MMPI, Humor Test and the clinical life history interview, where a plethora of differences emerged.

"Subsequent Army Careers of Effective and Ineffective Combat Soldiers," by Jerald N.
Walker, paper read at meeting of WPA, 1957.

This study deals with the Army careers, subsequent to Korean combat, of peer-nominated effective and ineffective combat performers (150 fighters and 150 nonfighters). Fighters and nonfighters did not differ on frequency of occurrence of disciplinary actions for military offenses, on mean date of separation from the service, or on reenlistment rate. However, fighters enjoyed a significantly greater mean increase in rank. No difference in intelligence and age was found between those subjects who were separated from the service and those who remained in the service.

**Field Stress: A Preliminary Study of Its Structure, Measurement, and Relationship to
Combat,** Staff Memorandum by Tor Meeland, Robert L. Egbert, and Irwin Miller, May 1957. II

This study was concerned with development of stress situations suitable for military testing and proposed training that would make demands demonstrably similar to those of combat. A variety of control stress situations was tried with an emphasis on realistic field activities. Many conventional psychological tests and questionnaires were also given. Correlation of rankings of the stress situations made independently by the men studied and by expert observers indicated that the relative stressfulness of each situation was determined with high reliability.

"Effect of Intelligence and Race on the Correlation Between Barron-Welsh Figure Preferences and Performance in Combat," by Mitchell Berkun, Victor B. Cline, Robert Egbert,
and Tor Meeland, paper read at meeting of APA, 1957.

As part of an extensive research program, samples of extremely effective and of extremely ineffective combat infantrymen were selected in Korea in 1953 and given a large battery of objective and personal inventory tests, one of which is reported here. The pattern of figures selectively preferred by one or the other sample was slightly altered when fighters and nonfighters were matched for intelligence, the mean intelligence of fighters being significantly higher than that of nonfighters. The general maturity of the fighters as indicated by the other tests is related to their preferences. No significant racial differences were found.

FIGHTER I: An Analysis of Combat Fighters and Non-Fighters, Technical Report 44, by I
Robert L. Egbert, Tor Meeland, Victor B. Cline, Edward W. Forgy, Martin W. Spickler, and
Charles Brown, December 1957. AD-158 178

The purpose of this study was to identify the characteristics that differentiate very good combat performers (fighters) from very poor combat performers (nonfighters). Knowledge of these characteristics can be used in the development of experimental procedures for training, and also for selection and organization of fighting units. The sample of 310 front-line soldiers in Korea was chosen for psychological testing on the basis of information about their recent combat behavior furnished by their peers and by themselves. The findings report the differences between fighters and nonfighters revealed by the test scores.

"Sociometric Effects of Race and of Combat Performance," by Tor Meeland and Mitchell M. Berkun, *Sociometry*, vol. 21, no. 2, 1958; paper read at meeting of WPA, 1957, under the title, **"A Probability Analysis of Criterion and Racial Effects in Sociometric Data."** I

Sociometric tests examining the effects of race and combat performance were given to 309 infantrymen immediately following Korean combat. The men were divided into 20 groups who lived together for a week of psychological testing. They were then given a sociometric test in which they were to choose and reject men to be with during rest and recreation, combat, and in a bunker, and to have as a combat leader. Results indicated (a) sociometric preferences show effects of race and characteristics associated with combat performance quality; (b) ineffective fighters were sociometrically rejected by both effective and ineffective fighters; and (c) ingroup and outgroup reactions to an outgroup are stronger in terms of rejecting the outgroup than in accepting the ingroup.

The Construction, Validation and Application of a Subjective Stress Scale, Staff Memorandum by Robert H. Yorle and Hilton M. Blalek, February 1958; paper read at meeting of APA, 1958, under the title, **"Measuring Affective States by Means of Thurstone Scaling Techniques."** IV

A persistent problem in field research is the measurement of subjects' perception of their own reactions or feelings. In innumerable situations, especially in stress and frustration experiments, this response is highly desirable and is usually accomplished either by a simple checklist or by asking the subject to verbally recollect after the experiment is completed. As a result, experimenters have been unable to derive measures of this response which would meet the criteria of objective measurement. The unique application of Thurstone scaling techniques to this problem has shown, empirically, the possibility of obtaining valid and reliable measures of affect which are amenable to conventional statistical manipulations.

FIGHTER I: A Study of Effective and Ineffective Combat Performers, Special Report 13, by Robert L. Egbert, Tor Meeland, Victor B. Cline, Edward W. Forgy, Martin W. Spickler, and Charles Brown, March 1958. AD-158 581 I

This research was designed to obtain as complete a description as possible of the differences between soldiers who were judged to be effective and ineffective combat performers in the Korean conflict. Tests were administered in Korea to 310 combat infantrymen who had previously been identified as fighters or nonfighters on the basis of descriptions of their recent combat behavior. The 40-hour test battery consisted of a wide variety of instruments, including personality questionnaires and projective tests, sociometrics, a life history questionnaire and interview, and objective tests designed to study various characteristics of the group. This report deals with the methodology of the research, describing the assessment procedures and the analyses performed on the data.

"Idiosyncratic and Nomothetic Stresses," by Mitchell M. Berkun, paper read at Symposium, meeting of WPA, 1958.

Inferred Correlation Between Combat Performance and Some Field Laboratory Stresses, Research Memorandum by Mitchell M. Berkun, Jerald N. Walker, and Tor Meeland, November 1958. AD-478 358L II

Subjects were examined to determine whether there is a correlation between performance in combat and performance in particular artificial stress situations. One sample group of 300 infantrymen (classified as either effective or ineffective combat performers) was tested during and immediately after Korean combat. The second sample of 120 trainees at Fort Ord were exposed to field and laboratory stresses (simulated combat, mock parachute jumps, electric shock, fire fighting), and were

ranked for effectiveness of performance. Results of tests administered to men undergoing the artificial stress situations and to combat performers did not correlate sufficiently to allow use of the situations as stress criterion indicators.

"Psychological and Physiological Responses in Observers of an Atomic Test Shot," by Mitchell M. Berkun, Paola S. Timiras, and Nello Pace, *Psychol. Rep.*, vol. 4, no. 4, December 1958 (Subcontractor: University of California).¹

Fourteen men given the opportunity to observe a test shot at close range did not reveal any stressful responses either by superficial conversation with the experimenters or by altered urinary constituents. However, responses on a self-descriptive verbal checklist did shift significantly from a control measurement of the same subjects. The control mean was the word "cool-headed"; the mean word on the experimental day was "timid," a shift of 3.1 points on an 11-point equal-appearing-interval scale. This scale is thus promising for many applications in evaluating a subjective emotional response.

"Development of a Verbal Measure for Use in Stress Study," by Kan Yagi, Robert E. Knox, and Patrick Capretta, paper read at meeting of WPA, 1959. IV

Army trainees were taken on a flight, presumably for a study of altitude effects, and the plane appeared to malfunction, with emergency conditions developing. The subjects were given, as a performance test, a contrived "official emergency data form" to complete, presumably as part of the ditching procedure. This form was actually a stress measure, with garbled and complicated instructions. One control group was given the measure on a normal flight; another, on the ground. The mean score of the experimental group was significantly lower than that of either control condition, indicating that the measure was sensitive to stress and that it did not reveal the pretense.

"A Test-Retest Study of Two Tests Measuring Mechanical Ability," by James L. Berry, paper read at meeting of WPA, 1959.

The test-retest reliabilities of the McQuarrie Mechanical Abilities Test and the Army Rifle Assembly Test were checked. During their fifth week of Basic Training, 93 Army trainees were divided into six groups counterbalanced to control for order of test presentation. The Rifle Assembly Test did not obtain the high measure of reliability of the McQuarrie test. The correlation between the tests was too low to warrant substitution of the Rifle Assembly Test in subsequent measures of mechanical ability.

"Validity of Two Types of Stress-Sensitive Measures in Military Field Studies: Experimentation and Discussion," by Patrick Capretta, Tar Meeland, and Hilton Bialek, paper read at meeting of WPA, 1959.

To determine the degree of psychological stress in several military field problems, two categories of response—field performance (firing proficiency, message recall, retention of emergency instructions) and psychological test behavior (rigidity-flexibility, ideation, and perseverance)—were examined. The performance measures had a greater overall sensitivity to stress than the psychological tests. The latter failed to discriminate between experimental stress and non-stress (control) in the field. Firing accuracy scores and recall of instructions showed highly significant effects.

¹Mitchell M. Berkun was on the staff of Division No. 3 (Recruit Training); Paola S. Timiras and Nello Pace were employees of the subcontractor.

"Some Characteristics Distinguishing Peer-Preferred From Non-Preferred and From Rejected Tentmates During a Cold-Weather Military Exercise," by Mitchell M. Berkun and Robert E. Knox, paper read at meeting of APA, 1959.

After engaging in cold weather maneuvers, 32 preferred, 32 rejected, and 18 sociometrically indifferent Army subjects were selected by tentmates who substantiated nominations with observed incidents of effective or ineffective behavior. Subsequently, an intensive two-day battery of tests was given to study characteristics distinguishing among these groups. The preferred subjects are reliably older and have more "automotive information." They are also better (statistically significant) on measures of eye-hand coordination, ability to handle complex information, masculinity, and ego strength. Other measures of intelligence gave differences consistently in favor of the preferred group being higher, but these differences failed of statistical significance. Age, ego strength, maturity, and perhaps intelligence distinguish preferred from nonpreferred peers in a hostile environment.

Human Psychophysiological Response to Stress: Successful Experimental Simulation of Real-Life Stresses, Research Memorandum by Mitchell M. Berkun, Hilton M. Bialek, Kan Yagi, James L. Berry, Richard P. Kern, Robert D. McDonald, and Howard H. McFann, December 1959; Symposium presented at meeting of APA, 1959. AD-478 299L

This presentation deals with some of the theoretical aspects of, and two empirical situations of, simulated stress in combat. A review of the conceptualization of and research methodology involved in simulation of real life stress situations is also included.

"Army Data on Taylor MAS, Intelligence, and Ego Strength," by Hugh L. LaMonaca and Mitchell M. Berkun, *Educ. Psychol. Measmt*, vol. 19, no. 4, Winter 1959; paper read at meeting of WPA, 1958, under the title, "Some Army Normative Data on the 50-Item Form of the Taylor Manifest Anxiety Scale."

A 50-item short form of the Taylor Manifest Anxiety Scale was studied in relation to an Army enlisted population. The short form was found to be adequate for selecting anxious subjects from Army enlisted men. On this sample, MAS correlated negatively with ego strength and zero with intelligence.

"A Note on Eosinopenia as an Index of Psychological Stress," by Robert D. McDonald and Kan Yagi, *J. Psychosom. Med.*, vol. 22, no. 2, March-April 1960.

A military field problem used direct eosinophil counts as an index of psychological stress. Seventeen subjects, led to believe they had caused serious injury to a companion through misuse of explosives, were required to attempt to repair a switchboard to call for medical assistance. A control group of 24 subjects attempted the same repair for routine calls. When compared with the control group and to themselves after a week of rest, results showed eosinopenia (a significant decrease in eosinophils) occurred in the stressed group.

"Intercorrelations of Taylor MAS With Certain Other Personality Measures and a Physiological Measure," by Mitchell M. Berkun, paper read at meeting of WPA, 1960.

A random sample of 150 Army trainees was tested with a variety of instruments. Correlations were computed between the Taylor Manifest Anxiety Scale and ego strength, multiple-choice Rorschach, intelligence, and peripheral circulation eosinophils. Correlations with ego strength and intelligence were essentially the same as those found in previous studies. Correlation with multiple-choice Rorschach was essentially zero. There was a slight tendency for higher MAS subjects to have a higher basal eosinophil count, giving some support to relating these two manifestations of anxiety.

- Validity and Reliability of Certain Indicators of Psychological Stress**, Research Memorandum by Patrick J. Capretta, James L. Berry, Robert H. Kerle, and Hugh L. LaMonaca, June 1960; paper read at meeting of WPA, 1959, under the title, "Backward Digit Memory Span and Stress." AD-478 381L IV

By utilizing a stressor with a high face validity and a measure which had previously discriminated transitory anxiety states, this study investigated the behavioral effects of stress on backward digit memory span, digit symbol substitution, number checking, and speed of rifle disassembly and assembly. It was determined that exposure of human beings to an apparently affect-producing situation produced concomitant performance effects on backward digit memory span tested during the situation, but not on subsequent performance of other tasks. Habituation reduced both the affective and behavioral response.

- "Human Eosinophil Response to Acute Physical Exertion,"** by Robert D. McDonald, Kan Yagi, and Eugene Stockton, *J. Psychosom. Med.*, vol. 23, no. 1, January-February 1961. IV
Eosinophil level is determined before and immediately after and at four successive two-hour intervals after strenuous voluntary exercise. An immediate rise in count is followed by a drop of at least two hours duration, recovery to normal being noted at 5½ hours after end of exercise. This is compared with the immediate drop previously found following emotional stress.

- "Some Problems in the Reliability of the Adjective Check List,"** by Kan Yagi and Mitchell Berkun, paper read at meeting of WPA, 1961.

The Adjective Check List developed by Nowlis was given to 147 enlisted military personnel as part of a larger research project. In addition to the standard instructions, the subjects were asked to cross out words they did not know or understand. By dropping reports with more than 10% (15 or more) of the words crossed out, or reports with several contradictory responses, or reports with four or more instances of disagreement in response to the same word, only 38% of the reports could be retained. It was concluded that the Adjective Check List was not an appropriate instrument to be used with this particular enlisted population without major modifications.

- "Summary of Research of Experimental Studies of Stress in Man,"** by Howard H. McFann, NATO Symposium on Defense Psychology, Soesterberg, The Netherlands, August 1961. IV
Five specific stress situations are briefly described and results of experimental studies in these situations are depicted graphically.

- "Blood and Urinary Responses of Man to an Ordered Series of Realistically Stressful Situations,"** by Mitchell M. Berkun, paper read at Symposium, meeting of Psychonomic Society, Columbia University, September 1961. IV

This is one of four papers describing research on the physiological and psychological effects of stress, utilizing natural-appearing stress stimuli and embedded measures. In the experimental situations, subjects believed their survival or that of another person was in jeopardy. The realistic stress situations produced a decrement in performance of a relevant task, an increase in negative affect, and a physiological alteration, relative to control groups.

- "Contrasts Between More Effective and Less Effective Persons,"** by H. Bialek, paper read at Symposium, meeting of Psychonomic Society, Columbia University, September 1961. IV

Experimental and control subjects in three realistic stress situations were divided into high performance and low performance categories. Effectives displayed less manifest anxiety, were significantly higher on an interest-attitude scale keyed for selecting highly rated combat men in Korea, were more intelligent, had more formal schooling, and had higher reading comprehension and mechanical ability. Ineffective performers tended to complain of worrying and nervousness and were introspective, ruminative, and over-ideational.

- "An Investigation of the Role of Defensive Functioning in Relation to Emotional Arousal and Effectiveness of Performance,"** by Richard P. Kern, paper read at Symposium, meeting of Psychonomic Society, Columbia University, September 1961. IV

Individual differences in reactions to experimental stressor situations were examined through an investigation of the clinical concept of defensive functioning and its role in relation to intensity of emotional arousal, perception of the physical harm threat, and quality of performance. Post-stress interviews and emotional arousal ratings obtained from a subjective stress scale supplied the data. It was concluded that defensive functioning, when it is assessed by means of retrospective report material, fills no useful function in accounting for individual differences in resistance to severe stressors.

- "Quantitative Subjective and Projective Responses to an Ordered Series of Realistically Stressful Situations,"** by Kan Yagi, paper read at Symposium, meeting of Psychonomic Society, Columbia University, September 1961. IV

A subjective stress scale (SSS) was used to assess the intensity of emotional arousal produced by four realistic stress situations. The mean SSS rating for each of the situations was used as the index of the intensity of threat. In each case, the experimental group means were higher (more negative) than those of their appropriate controls. Circulating eosinophils and urinary steroids were examined as a function of mean SSS. A plotted curve for blood eosinophils proved to be erratic; however, the steroid curve indicated a rise, then a fall, as SSS increased. Mean performance level showed a decrement at the more intense end of the continuum.

- "Validity and Reliability of Certain Measures of Psychological Stress,"** by Patrick J. Capretta and Mitchell M. Berkun, *Psychol. Rep.*, vol. 10, no. 3, June 1962. IV

- "Urinary Responses to Psychological Stresses,"** by Mitchell M. Berkun, paper read at meeting of Society for Psychophysiological Research, Denver, October 1962. IV

Urine samples were collected from 124 males, each of whom underwent briefly one of the following contrived but apparently genuine experiences: an aircraft emergency aloft with a crash landing threatened; a comparable flight but with no emergency; an Army field exercise in which artillery shells were mistakenly shot at them; an Army exercise which was interrupted by a brush fire which threatened the subject's safety; an Army exercise in which the subject accidentally became exposed to nuclear fallout; a comparable Army exercise in which no emergency developed; an accident for which the subject considered himself responsible which appeared to seriously injure another person; and two comparable control situations with no accident. The pattern of urinary responses for stressed groups and independent control groups, and data for both groups on their "experimental" day and a "base line" day when all subjects rested are presented.

- Experimental Studies of Psychological Stress in Man, Research Report 10,** by Mitchell M. Berkun, Hilton M. Bialek, Richard P. Kern, and Kan Yagi, December 1962; published as *Psychol. Monogr.*, vol. 76, no. 15 (Whole No. 534) [October] 1962. IV

AD-469 091

This research consisted of efforts to develop stressful situations that could be used to determine individual reactions to stress. To establish that an effect is produced similar to the effect evoked by a naturally occurring event, three criteria were proposed: (a) a subjective self-report of the stress situation; (b) an objective measurement of the performance of acts relevant to the stressful environment; (c) a measurement of the physiological response to the stress situation. Five experimental situations were tested against these criteria, from 13 to 27 subjects exposed to each situation. Observations on subjects are presented, with brief descriptions of differences between more effective and less effective performers.

"Psychological and Physiological Criteria for Stress Simulation Research," by Mitchell M. Berkun, paper read at 3d Annual Symposium, Human Factors Society of Los Angeles, June 1963.

IV

To predict, from experimentation, the ability of men to cope with real stresses requires first a validation of the experimental situation as a substitute criterion for uncontrollable reality. Simulation of a stressful environment must avoid cues which invite the subject to deliberately assume a role or which provide him with more psychological support than he will receive in the reality to which the findings must generalize. The task he is to perform must be meaningful in the stress-producing context. Stressors which fulfill these requirements ought to produce (a) a measurable disturbance of performance, (b) a report of awareness of a feeling of discomfort, fear, threat, or unpleasantness, and (c) a measurable perturbation of physiological processes.

"The Trumpet Sounds: Can Our Troops Be 'Battleproofed'?" *Army Information Dig.*, vol. 20, no. 12, December 1965; based on a briefing by Richard Kern and Howard McFann given at the U.S. Army Infantry School, Fort Benning, Ga.

This article discusses the relation of combat training, personality, and attitudes and their effects on a trainee's performance under hazardous conditions. Such performance is viewed as a joint function of technical skills and the relative strength of two opposing attitudes—confidence or despair. When training contributes unnecessarily to a man's sense of despair, it can unintentionally undermine his ability to cope with the stresses of combat. Skills can be taught, however, in such a way as to increase a man's confidence and thus his resistance to combat stress, and it might be expected to make him less vulnerable during initial exposure to combat and more effective over a longer period of time.

A Conceptual Model of Behavior Under Stress, With Implications for Combat Training, Technical Report 66-12, by Richard P. Kern, June 1966.

AD-637 312

V

On the basis of reported observations of the behavior of individuals under various prolonged physical harm conditions, a sequential pattern of behavioral reactions is described, reflecting the behavioral manifestations of a stress process. This sequential pattern of behavior would be expected, over time, to apply to any individual in any severe physical harm threat. The rate of development of this behavioral pattern under a given set of environmental stressor conditions represents the individual's stress resistance. A conceptual model was developed to describe the mode of operation of key attitudinal variables and environmental stressor variables in producing this behavioral pattern as well as the individual differences in stress resistance. Design of training to increase stress resistance in combat or other hazardous jobs is discussed from the basis of this conceptual framework.

FIREPOWER—Division No. 2 (Armor)

Sub-Unit

Methods for Improving Performance in Tank Gunnery

Error in the Use of the M1 Gunner's Quadrant, Staff Memorandum by Charles A. Bancroft, June 1955. III
AD-480 315

Consistency in Laying the Main Tank Gun in a Live-Fire Situation (U), Technical Report 39, by Melvin A. Schmitz, June 1957 (CONFIDENTIAL, Modified Handling Authorized). AD-137 495 II

Motion picture records of the lay-fire sequence were made of 23 armor trainees and 11 expert gunners firing a series of six live rounds at a simulated target. The motion picture data were studied with a view toward describing the consistency with which trainees and experts lay the main tank gun. In addition, factors contributing to variable lay error in the live-fire situation were discussed. (U)

Comparison of the Stereoscopic Range Finder, M12 With the Coincidence Range Finder, T43, (U), Technical Report 42, by Norman Willard, Jr., August 1957 (CONFIDENTIAL). AD-141 530 I

Two types of range finders have been developed for use in Armor as a means for determining target distance. In 1952 the stereoscopic instrument was adopted; subsequently, a new and improved model of the coincidence range finder was produced. In field tests, a controlled comparison was made of the operator's rate of learning and the final level of proficiency achieved on the two types of instrument. (U)

Comparison of the Stereoscopic Range Finder, M12 and the Coincidence Range Finder, T43 as Used in Range Determination at Night, Technical Report 53, by Melvin A. Schmitz, Edward A. Stark, and Norman Willard, Jr., April 1959. AD-216 117 I

A comparison was made of the performance of highly skilled range finder operators using the stereoscopic range finder, M12, and the coincidence range finder, T43, on targets likely to be encountered at night. Rangings were made on tank targets set at varying distances from the line of observation, by daylight and at night with the targets under two different conditions of illumination. Findings indicated the superiority of the coincidence range finder as the optical ranging device for use in tank gunnery at night.

The Training Effectiveness of Table VII of the Tank Gunnery Qualification Course, Research Memorandum by Ronald C. Kelsay, April 1959. AD-487 892L VI

Human Factors Evaluation of the Tank, Combat Full Tracked: 105mm Gun, M60, Consulting Report by Donald F. Haggard and Albert R. Wight, February 1961. AD-487 893L VIII

"Collective Reinforcement of Groups," by Peter C. Wolff, Dennis Cannon, and David Burnstein, paper read at meeting of MPA, 1962. IV

Target Detection: Study 3, The Relative Usefulness of Active Participation and Verbal Description Techniques in Target Detection Training, Research Memorandum by Peter C. Wolff and Joseph Van Loo, July 1962. AD-487 891L IV

The study dealt with active participation, verbal descriptions, and transfer from stationary to moving targets during training in target detection and identification. Findings indicated that target detection was improved by active participation but false detection was increased. Findings also suggested that target detection and target identification skills should be trained separately. Appendices list slides used, subject instruction, and slide test descriptions.

Target Detection: Study 6, The Effects of Schedules of Collective Reinforcement on a Class During Training in Target Detection, Research Memorandum by Peter C. Wolff, David D. Burnstein, and Joseph A. Van Loo, July 1962; paper read at meeting of SEPA, 1962. AD-487 889L IV

Target detection training was studied to determine the effectiveness of (a) group training as compared to individual training, (b) graded and random sequences of difficulty in target detection slides, and (c) verbal reinforcement for correct detection

responses. Results indicated no loss of effectiveness for group training, but that verbal reinforcement did not significantly increase target detection performance. Graded sequences of difficulty in detection problems were more effective than the randomly sequenced problems.

Training Methods for Simulators of Remote Control Human-Guided Missile Systems: 1. A Comparative Evaluation of Component Skill and Total Skill Training Exercises, Research Memorandum by Donald F. Haggard, July 1962.

VII

AD-463 442

Seven training programs including total task practice and component skill groups were compared to determine relative effectiveness for simulator training (particularly S-55 simulator). Total task practice was superior to the others. It was concluded that the S-55 is not so complex as to require training fractionation.

Target Detection: Study 7, Partial Point-Out of Targets as Collective Reinforcement in Group Target Detection Training, Research Memorandum by Peter C. Wolff, Joseph A. Van Loo, and David D. Burnstein, August 1962.

IV

Collective reinforcement, feedback in the form of providing partial point-out of targets according to one of six schedules, was studied during target detection training. Although there were significant differences between groups on different schedules of reinforcement, none of the groups performed as well as a comparison group receiving 100 percent reinforcement.

Training Methods for Simulators of Remote Control Human-Guided Missile Systems: 2. An Experimental Comparison of Three ATGM Gunner Training Programs (U), Research Memorandum by Donald F. Haggard, August 1962 (CONFIDENTIAL).

VII

"Effects of Schedules of Collective Reinforcement on a Class During a Target Detection Course," by Peter C. Wolff, David D. Burnstein, and Joseph A. Van Loo, *Percept. Mot. Skills*, vol. 15, no. 3, December 1962.

IV

To determine whether the effects of group reinforcement are similar to those of individual reinforcement, 105 U.S. Army trainees in seven groups in target detection were given various schedules of verbal praise. Of three groups which saw the slides in a graded sequence of difficulty, one group received verbal praise whenever 80% made the correct response, one received praise whenever the cumulative total of correct responses was 24, and one received no reinforcement. Three other groups, similarly reinforced, saw the slides in a random sequence. The results were consistent with those obtained elsewhere. The graded sequence of slide presentation led to significantly better performance on the post-training test. Consistent reinforcement of "easy responses" led subjects to make only easy detections; whereas, reinforcement of "easy and difficult responses" led them to make difficult detections. That is, the ratio method led to better performance, and the percentage method to poorer performance, than the no-reinforcement method.

"Group Training With Active Participation: Some Methodological Limitations," by Peter C. Wolff, David D. Burnstein, Donald F. Haggard, and Joseph A. Van Loo, *Percept. Mot. Skills*, vol. 16, no. 1, February 1963.

IV

Eighty enlisted men matched on visual acuity and color discrimination were divided into four equal groups: a demonstration method, an active participation method, an untrained group, and a group of "experts." Actively trained subjects detected significantly more targets than untrained subjects but, also made significantly more false detections. The expert group did not make any more detections than the active participation group but made fewer false detections than either the active participation group or the demonstration group.

Research By-Products resulting from this research effort are listed in Part III.

FLINCH—Division No. 2 (Armor)

Sub-Unit

The Effect of Flinch Upon M1 Rifle Marksmanship

The Effect of Flinching on M1 Rifle Marksmanship, Staff Memorandum by Eugene F. MacCaslin and Leo Levy, March 1955.

AD-477 645L

FORECAST—Division No. 1 (System Operations)

**Development of a Method of Forecasting Training Demands Imposed
by New Electronic Weapon Systems**

"Cue Response Analysis of a Maintenance Task," by Edgar L. Shriver, paper read at meeting of APA, 1958.

I

Determining Training Requirements for Electronic System Maintenance: Development and Test of a New Method of Skill and Knowledge Analysis, Technical Report 63, by Edgar L. Shriver, June 1960.

AD-239 416

The object of this study was to develop methods of analysis that would (a) accurately define the skills and knowledges needed for the operation and repair of electronic systems, and (b) be applicable to such systems in preproduction stages so that they could be used in forecasting training needs. Methods of analyzing the operation and maintenance (through fourth echelon) from the system itself were developed for the M33 radar system, and a cue-response training content was derived. A nine-day performance test (including about the same number and type of field malfunction problems that an average MOS 232.1 repairman would encounter during his first 8 to 12 months on the job) was used to evaluate the proficiency of about 40 students trained by the experimental and the standard courses. Although the experimental training required less than half as much time as the standard course, there was no practical difference in the proficiency of the two groups.

A Procedural Guide for Technical Implementation of the FORECAST Methods of Task and Skill Analysis, training manual by Edgar L. Shriver, C. Dennis Fink, and Robert C. Trexler, July 1961.

AD-262 771

Detailed guidance on the method of writing task analyses and the use of FORECAST training techniques to develop a more pertinent and better-organized electronics course is provided in this supplement to Technical Report 63. Although this manual devotes some attention to other areas of maintenance, it is primarily concerned with the problem of proficient troubleshooting of electronic equipment.

FORECAST Mockup System Technical Description, by C. Dennis Fink, Robert C. Trexler, James E. Birdsall, and Edgar L. Shriver, September 1961.

AD-637 726

"Using C & R to Translate Logical TS Into Practical TS," by Edgar L. Shriver, paper read at Symposium, meeting of APA, 1961.

51

- A Description of SNAP Programming, Research Memorandum by Edgar L. Shriver and Robert C. Trexler, May 1963.** AD-422 110 IV

SNAP is a simplified training method of presenting programmed materials to avoid unduly exacting and boring techniques. SNAP—Socratic Non-Anacoluthic Programming—refers to tutorial interplay between program and student (Socratic) with unbroken sequence and coherence especially within single thoughts (Non-Anacoluthic). Material is presented in scrambled book form, interspersing what normally would be end-of-chapter questions throughout the chapter. In this way the learner participates actively, as he is expected to respond correctly in one step before he continues to the next.

- Implementation and Checkout of the FORECAST Concept of Electronic System Repair at the U.S. Army Ordnance Guided Missile School, Consulting Report by Edgar L. Shriver, C. Dennis Fink, and Robert C. Trexler, August 1963.** AD-422 383 III

The FORECAST concept of electronic system repair was implemented and checked out on the Improved Nike-Hercules high power acquisition radar (HIPAR). The report goes into the basic concepts, mockup equipment used in training, and details of the training. The FORECAST portion is 10 weeks of the total training period, and covers overall system functioning and practice. Appendices give course outlines, equipment illustrations, and sample lesson plans.

- SNAP Programming: Troubleshooting the Improved NIKE Hercules HIPAR Transmitter, by Edgar L. Shriver and Robert C. Trexler, February 1964, supplement to A Description of SNAP Programming, Research Memorandum, May 1963.** AD-637 731 IV

- "SNAP Programming," by E.L. Shriver and R.C. Trexler, paper read at National Society of Programmed Instruction, San Antonio, April 1964.** IV

- FORECAST Systems Analysis and Training Methods for Electronics Maintenance Training, Research Report 13, by Edgar L. Shriver, C. Dennis Fink, and Robert C. Trexler, May 1964.** AD-441 248

The research presented in this report was directed primarily toward troubleshooting electronic weapon systems. Its principal findings bear upon three interconnected problems: (a) developing training content based upon a cue-response paradigm; (b) developing training and job methods and aids, such as mock-ups, substitute or obsolete equipment, and block diagrams for troubleshooting; (c) planning and managing personnel, with special reference to transition training from old to new weapon systems. Results of the studies made suggest that training based on FORECAST methods of analysis produces men capable of effectively performing the job with less training time than needed for traditional instruction in electronics maintenance.

- "Two Jobs for One in Electronic Maintenance," by Edgar L. Shriver and Robert C. Trexler, paper read at meeting of A.P.A., 1965.**

The FORECAST concept is a collection of policies, strategies, methods, techniques, and services integrated in a plan for an improved level of electronics maintenance in the services. It (a) divides the job of electronics maintenance into two parts—planning and execution, (b) provides the details of how to accomplish the break, (c) provides guidance for personnel who engage in the planning, and (d) provides examples of manuals and training programs for the execution phase. In a test on a Navy system the FORECAST students identified 39% of the malfunctioning parts, the conventional students identified 13% of the malfunctioning parts in the time allowed.

Research By-Products resulting from this research effort are listed in Part III.

GAMBIT—Psychological Warfare Division
Identification of Personnel Characteristics for Evaluating
Special Forces Training

Sub-Unit

Factors Related to the Effectiveness of Special Forces Personnel [U], Staff Memorandum by Herbert I. Abelson, with Technical Appendices (published separately) by Harriet S. Beckwitt and Herbert I. Abelson, August 1954 (CONFIDENTIAL).

GUNNERY—Division No. 2 (Armor)

Conservation of Tank Ammunition Through an Improved Training Method:
Subcaliber Substitution

An Analysis of the M48 Troop Test Firing Data (U), Staff Memorandum by Charles A. Bancroft, March 1955 (CONFIDENTIAL).

The Effect of Increased Subcaliber Substitution Training on 90mm Gunnery Proficiency, Staff Memorandum by Vonne F. Porter, Donald J. Baerman, and John G. Reddan, June 1955.

AD-480 427

Consistency in Re-laying as a Factor in Tank Gunnery, Technical Report 25, by Leland E. Thune and Andrew J. Eckles III, December 1955.

AD-103 634

This study was designed to measure the degree to which accuracy of fire in tank gunnery is limited by the operator's ability to re-lay the weapon on the same aiming point. Tests made on the M48 tank show that (a) highly consistent re-laying is possible with the range finder, the telescope, and the periscope; (b) variability in ranging and in action of the computer is a larger source of inconsistency than is aligning the sight reticle on the target; (c) consistency in re-laying is directly related to refinement and optical power of the fire control device used; and (d) consistency in re-laying by tank crews reaffirms the need for having boresight retention checks made by skilled technicians using special aids. Tests made on the M47 tank showed that both tank gunnery experts and trainees re-lay with high consistency, but that re-laying consistency of trainees as measured in this study is only very slightly related to gunnery proficiency.

HELFIRE—Division No. 6 (Aviation)

(Ongoing) Sub-Unit

Methods for Improving Training and Performance in Aerial Firepower Systems

"Target Acquisition From the Armed Helicopter," by Francis H. Thomas, paper presented at classified Visual Search Symposium of the Armed Forces - NRC Committee on Vision, San Diego, April 1962.

"Let's Take a Look at New Project Task HELFIRE," by CPT Donald J. Haid, *Army Aviation*, vol. 11, no. 9, September 1962.¹

"A Discussion of U.S. Army Aircraft Armament Program, 1 February 1963," by MAJ Donald J. Haid, paper read at meeting of American Helicopter Society, Washington, May 1963.¹

"Aviator Performance in the Light Weapons Helicopter During Nap-of-the-Earth Flight," by Francis H. Thomas, paper read at meeting of the 10th Army Human Factors Research and Development Conference, U.S. Army Board for Aviation Accident Research, Fort Rucker, Ala., October 1964.

II

¹Major Haid was the Unit Chief of the U.S. Army Aviation Human Research Unit.

HIGHLEAD—Division No. 4 (Infantry)

Sub-Unit

Training for Leadership at Senior Levels of Command

"Assumption of Command," by Joseph A. Olmstead, *Military Rev.*, vol. XLIV, no. 2, February 1964.

"Leadership at Senior Levels of Command," by Joseph A. Olmstead, paper read at meeting of the Georgia Psychological Association, Jekyll Island, Ga., February 1965.

HILO—Division No. 4 (Infantry)

An Experimental Study of Habituation to Height at the Mock Tower

***The Effect of Mock Tower Height in Airborne Training*, Technical Report 29, by Charles D. Windle, Joseph S. Ward, Kimball Nedved, and Jerome Nathan, May 1956.**

AD-108 198

As the final phase of a research study of attrition in basic Airborne training, experimental variations were introduced into the mock tower jumps: Group A, all from 18 ft.; Group B, all from 26 ft.; Group C, all from 34 ft. (standard procedure); and Group D, progressing from 18 to 26 to 34 ft. Performance comparisons showed that the first two groups learned jump form more readily than did Group C; Group D did not appear to be superior to Group C in learning jump form. The attrition rate for the experimental was less than for the standard group during mock tower training; however, the four groups did not differ significantly in attrition by the end of the course.

Methods for Deriving Instructional Objectives

"Deriving, Specifying, and Using Instructional Objectives," Symposium, meeting of SWPA, 1966.

"In Defense of Instructional Objectives," by William H. Melching.

Instructional objectives that are stated in terms of the performance expected of a student upon completion of instruction are intended to communicate to both students and instructors. Sample objectives, a history of the development of ideas about objectives, and methods of preparing suitable objectives are given.

"Some Important Ways in Which Performance Objectives Can Vary," by Harry L. Ammerman.

A study of the objectives for 40 courses from eight schools is summarized. Objectives varied in level of specificity of student action, extent to which action is described, completeness, and relevance. Each of these factors is illustrated and discussed. Suggestions are given for promoting objectives to better meet these factors as criteria of useful communicating objectives.

"The Content Validity of Instructional Objectives," by Paul G. Whitmore.

Instructional objectives are equated to specifications for test construction, which should lead to the construction of essentially similar tests. These objectives should relate to some later job situation. The content validity of the test situations is a function of those job descriptive characteristics that affect the required performances in the job situations. Such characteristics are identified during the development of task descriptions. The various classes of task descriptions are related to the design of instructional testing procedures, printed job aids, and instructional communications.

"Instructional Objectives and Measuring Success of Instruction," by John A. Cox.

Given instructional objectives, test items to measure these objectives are relatively easy to conceive. Content validity for the test can be attained by sampling procedures; construct validity is *prima facie*; predictive validity can be computed, if it is reasonable to do so. The logic of developing a curriculum independently from the test is discussed, and use of the test for controlling the quality of trainees is emphasized.

The Derivation, Analysis, and Classification of Instructional Objectives, Technical Report 66-4, by Harry L. Ammerman and William H. Melching, May 1966. AD-633 474

An examination of the methods, terms, and criteria associated with the determination of student performance objectives was made in order to synthesize and apply the relatively new developments in Human Factors research on this subject. Educational and training research literature on the subject was examined to identify procedures currently being used or proposed. A survey of eight Army service schools was conducted to determine procedures employed by instructional personnel in determining course content. On the basis of data obtained, important problems arising in connection with the development of objectives are identified and analyzed. A system for analyzing instructional objectives by identifying factors that influence their meaningfulness and usefulness was developed. Types of student performance objectives are listed, and a classification scheme for terminal objectives is suggested. The classification is based on five factors on which a statement of an objective may vary, affecting the nature of the student action description and the communicability of the statement itself. The variety of terms associated with objectives are discussed.

INTACT—Division No. 6 (Aviation)¹
Integrated Contact/Instrument Training

Sub-Unit

§ A Summary of Prior Research on Integrated Contact/Instrument Flight Training, Staff I
Memorandum by Oran B. Jolley, June 1958. AD-480 456

"INTACT: Integrated Instrument Contact Primary Flight Training," by Arthur C. Poe, Jr.,
MAJ O.B. Jolley, USA Ret., and W.W. Prophet, *U.S. Army Aviation Dig.*, vol. 6, no. 7,
July 1960.

"Let's Take a Look at the Sequence of Flight Instruction," by LTC Arne H. Eliasson,
Army Aviation, vol. 10, no. 6, June 1961.²

¹This Work Unit was initiated at Division No. 1 (System Operations). The symbol § indicates an item prepared at Division No. 1.

²Colonel Eliasson was the Unit Chief of the U.S. Army Aviation Human Research Unit.

INTERSQUAD--Division No. 3 (Recruit Training)

Sub-Unit

A Study of the Factors Which Account for the Differences Between Effective and Ineffective Rifle Squads

"Analyzing the Group Structures of Rifle Squads in Combat," by Rodney A. Clark, paper read at meeting of APA, 1953.

This paper presents a sociograph derived from the positive and negative valuations of 28 riflemen in one platoon. Each soldier was asked to nominate the three platoon mates with whom he would most like to share a bunker and the three with whom he would least like to live. The sociographic sequence for organizing the sociometric valuations is presented along with a sociographic analysis of the platoon under study.

"Developing a Functional Theory of Leadership," by Rodney A. Clark, paper read at meeting of APA, 1955.

Members of 69 rifle squads on the Korean front lines during the winter of 1952-53 completed questionnaires about their civilian and military backgrounds, skills, and attitudes. In addition, each man was interviewed about himself, his squad, its activities, and the men in it. Platoon leaders and other platoon personnel, company commanders, and battalion commanders contributed performance ratings of their units. Analyses revealed two kinds of variables, leadership functions and group structures of values, which were related to squad combat effectiveness and to each other. From these data, the functional theory of leadership indicated that the activities of a leader which increase effectiveness of group performance are those activities that change the group structure of values.

Leadership in Rifle Squads on the Korean Front Line, Technical Report 21, by Rodney A. Clark, September 1955 (For Official Use Only).

AD-91 214

The purpose of the study was to determine some of the factors accounting for the difference between effective and ineffective combat rifle squads, with particular attention to differences in squad leadership which may be related to squad effectiveness. Leadership functions, in addition to squad management, found to be important to rifle squad combat effectiveness are: defining goals, setting appropriate examples, teaching, and giving emotional support to the squad. These leadership functions can be effectively performed by squad members other than the squad leader. Findings of this study point to a need for constructing a squad leader training program directed toward development of squad leadership potential. (U)

"The Use of the Q-Sort for Collecting Attitude Data From Company Commanders Under Field Conditions," by Rodney A. Clark, paper read at meeting of WPA, 1956.

A division-size field maneuver to test certain changes in division organization required evaluating the effect of the changes on the attitudes of company commanders toward their jobs. A 36 item Q-sort was prepared to obtain the commanders' self-descriptions. Each commander described himself in three ways: (a) as he saw himself commanding under the new organization; (b) as he used to see himself commanding under the previous organization; and (c) as he would like to see himself commanding under the best possible organization. Subjects recognized the Q-items as of consistent descriptive relevance to a commander's performance, and it was demonstrated that, in spite of administrative difficulties, utilization of a Q-sort under field conditions is possible.

JOBTRAIN--Division No. 1 (System Operations)
Development of a Method for Building Training Programs
for Signal Corps Electronics Repairmen

Sub-Unit

The Development of Training Programs for First Enlistment Personnel in Electronics Maintenance MOS's: II. How to Analyze Performance Objectives to Determine Training Content, Research Memorandum by Arthur J. Hoehn, January 1960. II
AD-623 944

This is the second of a series of guidance documents concerning the design and development of integrated school and on-the-job training programs for first-enlistment personnel in electronics maintenance MOSs. The purpose of the series is to assist instructors in (a) reducing the time required for formal school training, and/or improving the initial job capabilities of electronics repairmen, and (b) improving individual technical training provided at the unit level for electronics repairmen in units with a full-time training mission. This report is concerned with how to analyze performance requirements in order to define training content. Divided into two parts, it consists of a statement of assumptions, concepts, and principles relating to the analysis of performance requirements, and describes procedures for applying the concepts.

The Development of Training Programs for First Enlistment Personnel in Electronics Maintenance MOS's: III. How to Design the Handbook Materials, Research Memorandum by Arthur J. Hoehn, February 1960. II
AD-631 069

This is the third of a series of guidance documents concerning the design and development of integrated school and on-the-job training programs for first-enlistment personnel in electronics maintenance MOSs. This report consists of concepts and principles relating to handbook design and describes procedures for applying the principles.

The Development of Training Programs for First Enlistment Personnel in Electronics Maintenance MOS's: IV. How to Design Training Methods and Materials, Research Memorandum by Arthur J. Hoehn, February 1960. II
AD-628 168

This is the fourth of a series of guidance documents concerning the design and development of integrated school and on-the-job training programs for first-enlistment personnel in electronics maintenance MOSs. This report states concepts and principles relevant to the design of training methods and materials, and includes a brief outline of the procedure for applying these concepts and principles.

The Development of Training Programs for First Enlistment Repairmen: I. How to Define Training Objectives, Research Memorandum by Arthur J. Hoehn and Andrew H. McClure, July 1960. I
AD-632 490

This is the first of a series of guidance documents concerning the design and development of integrated school and on-the-job training programs for first-enlistment personnel in electronics maintenance MOSs. The purpose of these documents is to assist training officers in (a) reducing the time required for formal school training, and/or improving the initial job capabilities of electronics repairmen, and (b) improving individual technical training provided at the unit level for electronics repairmen in units with a full-time training mission. This first document focuses primarily on the design of formal school programs by defining training objectives.

"The Technician as a Data Processing System Within the Electronics Maintenance Complex," by R. Gebhard, paper read at meeting of APA, 1963.

Two among the many parameters which determine the maintainability of military electronic systems are of special interest to behavioral technicians because they contribute so greatly to efficiency in terms of training time, repair time, and equipment downtime. These parameters are, respectively, the data processing function,

JOBTRAIN (Cont.)

Sub-Unit

which provides decisions about possible malfunctioning piece parts, and the information matrix, which provides test data and programs the data processing system. An experimental comparison is reported evaluating a method for structuring the information matrix so as to capitalize on superior capabilities, from among Gagné's hierarchy of human functioning, which are easily programed.

Research By-Products resulting from this research effort are listed in Part III.

JUMBOOT—Motivation, Morale, and Leadership Division

**An Investigation Into Causes and Methods of Overcoming Attrition
in the Army Airborne Training Program**

"Self-Ratings of Fear as a Research Instrument in Fear-Invoking Situations," by Richard D. Walk, paper read at meeting of EPA, 1954.

"Susceptibility to Stress on a Simple Psychomotor Task," by Richard D. Walk, paper read at meeting of EPA, 1956.

KAZPO—Psychological Warfare Division

Sub-Unit

A Study of the Vulnerabilities of the Kazakh Population

The Kazakhs: A Background Study for Psychological Warfare, Technical Report 23, by Lawrence Krader and Ivor Wayne, November 1955 (Subcontractor: Bureau of Social Science Research, American University).

AD-83 258

This study was made (a) to identify the source of conflicts between the Kazakhs' way of life and the policies imposed on them by the Communist regime and (b) to describe communication patterns and facilities relevant to possible psychological warfare needs. The study indicated that the Kazakhs' conflicts are related to loyalties to nationality and culture, strong ties to their kinsmen, and persistence of folk religion. The Kazakhs appear to be opposed to many aspects of Sovietization, but their resistance is largely passive.

KNOWHOLD—Division No. 1 (System Operations)

The Assessment of Military Knowledge at Different Stages of the Career Cycle

"Factors Affecting the Level of Basic Military Knowledge of Active Army Enlisted Personnel at Various Points During Army Service," by Albert I. Prince, Jr., William E. Montague, Ivan H. Scheier, and George J. Wischner, paper read at meeting of APA, 1955.

I

"A Pilot Study of the Retention of Basic Military Subject Matter After Separation From the Service," by Harry W. Braun, paper read at meeting of APA, 1955 (Subcontractor: University of Pittsburgh).

II

Basic Military Knowledge in the Army Reserve, Staff Memorandum by William E. Montague (a condensation based on Subcontractor's report by Harry W. Braun), December 1956 (Subcontractor: University of Pittsburgh).

AD-480 323

II

Basic Military Knowledge in the Active Duty Army, Staff Memorandum by Ivan H. Scheier, William E. Montague, Albert I. Prince, and George J. Wischner, June 1957.

AD-488 400L

I

LEAD—Division No. 4 (Infantry)

(Ongoing) Sub-Unit

**Development of Training for Improving the Combat Skills
of Leaders in Small Infantry Units**

"An Evaluation of the Effect of Programmed Instruction Response Origin and Form on Acquisition and Retention Scores," by T.J. McCrystal and T.O. Jacobs, paper read at meeting of APA, 1963. II

One hundred and twenty Infantry lieutenants studied fundamentals of defensive tactics by programed booklet instruction, using four different response conditions. Constructed-overt, constructed-covert, prompted-overt, and prompted-covert response conditions were compared. No significant differences in criterion scores were observed between the response conditions as measured by immediate and delayed retention tests. There was no significant difference in test scores between the programed methods and the standard lecture method, although the latter method required twice the training time of the fastest programed method. Observations were made concerning attitude change toward programed instruction after eight weeks.

LIFT—Division No. 6 (Aviation)¹
Army Aviation Helicopter Pilot Training

Sub-Unit

§ Survey of the Army Cargo Helicopter Pilot Course, Staff Memorandum by Albert I. Prince and Hobart G. Osburn, June 1957. AD-480 458

I

"The Effects on Flight Proficiency Measurement Reliability of Differences on Check Pilot Standards," by George D. Greer, Jr., paper read at meeting of APA, 1959.

II

The problem of low or variable flight proficiency measurement reliability, whether the measure is the traditional subjective or a relatively objective system, is attributed to marked, identifiable differences in the standards applied by different check pilots. By means of a relatively simple classroom technique, pairs of check pilots can be selected whose standards are sufficiently uniform that the ride-ride reliability of the flight proficiency evaluation system can go from less than .20 up to .65 or higher. The method needs further development to serve the purpose of providing the basis for uniformity of standards training as well as selection.

"Let's Take a Look at Quality Control in Helicopter Training," by LTC Arne H. Eliasson, Army Aviation, vol. 10, no. 7, July 1961.²

Survey of Operational Flying Activities of Rotary Wing Aviators, Technical Report 75, by Norman W. Heimstra, Nicholas B. Louis, and MAJ Arnold R. Young, April 1962. AD-274 980

III

As part of a world-wide survey of Army aviators, 743 rotary wing aviators completed a 166-item questionnaire, giving detailed information on their operational activities and evaluating their school and unit training. Data are presented on such topics as frequency of types of missions and of various operations or maneuvers, the flying techniques used in these operations, and type and amount of unit training received. In addition, interviews were conducted with 90 unit commanders, instructor pilots, and operations officers to obtain their evaluations of the proficiency of aviators received from the Aviation School and of the unit training given rotary wing aviators.

Survey of Operational Flying Activities of Fixed Wing Aviators, Technical Report 76, by Norman W. Heimstra, Nicholas B. Louis, and MAJ Arnold R. Young, April 1962. AD-274 929

III

As part of a world-wide survey of Army aviators, 578 fixed wing aviators completed a 121 item questionnaire, giving detailed information on their operational activities and evaluating their school and unit training. Data are presented on such topics as frequency of types of missions and of various operations or maneuvers, the flying techniques used in these operations, and type and amount of unit training received. In addition, interviews were conducted with 90 unit commanders, instructor pilots, and operations officers to obtain their evaluations of the proficiency of aviators received from the Aviation School and of the unit training given fixed wing aviators.

Improving Flight Proficiency Evaluation in Army Helicopter Pilot Training, Technical Report 77, by George D. Greer, Jr., Wayne D. Smith, and CPT Jimmy L. Hatfield, May 1962.

II

AD-276 118

A method was devised for evaluating helicopter pilots' end-of-phase performance in primary helicopter training on the basis of a standard check ride evaluated with more objective measures. The measures—termed the Intermediate PPDR (Pilot Performance Description Record) and the Advanced PPDR—consist of scales for the critical maneuvers given in primary helicopter training, on which the check pilot can record his observations of each component of performance during the actual

¹This Work Unit was initiated at Division No. 1 (System Operations). The symbol § indicates an item prepared at Division No. 1.

²Colonel Eliasson was the Unit Chief of the U.S. Army Aviation Human Research Unit.

LIFT (Cont.)

Sub-Unit

flight. The PPDR system of evaluation was found to be more reliable and diagnostic than the method used in the past. In addition to the PPDR booklet, the new system includes a training program for check pilots in the use of the PPDR and classroom practice in scoring the PPDRs for the correction of atypical standards of evaluation.

"Briefing (Task LIFT)," by John O. Duffy and MAJ Oran B. Jolley, USA Ret., presented at 15th Annual International Air Safety Seminar, Williamsburg, Va., December 1962.

"Helicopter Formation Flying," by Wallace W. Prophet, *U.S. Army Aviation Dig.*, vol. 9, no. 2, February 1963.

A System of Flight Training Quality Control and Its Application to Helicopter Training, Consulting Report (supplement to Technical Report 77) by John O. Duffy and Carroll M. Colgan, June 1963.

AD-419 081

This report describes the manner in which the concepts and principles of quality control were applied to the flight training course at the U.S. Army Primary Helicopter School. The quality control system described is characterized by: (a) comprehensive and consistent testing of students' flight proficiency; (b) accurate and equitable evaluation of the efficiency of training personnel; (c) a high degree of uniformity of flight-check procedures and scoring practices; and (d) objective and detailed school standards by which individual students or classes may be evaluated.

"A Quality Control Program Applied to Helicopter Training," by John O. Duffy, paper read at meeting of APA, 1963.

A quality control program implemented at the U.S. Army Primary Helicopter School consists of systematic evaluation of checkrides given to students at two levels of proficiency during training. These checkrides are scored in flight utilizing a detailed scoring record developed for this purpose. Data from these checkrides are used (a) to evaluate student performance; (b) to compute a class error score per maneuver and a school standard of errors per maneuver; (c) to determine sources of class deviation from the average; (d) to evaluate instructor pilot performance; (e) to regulate check pilot performance and standardization; and (f) to indicate changes in school standards.

"Flight Training Quality Control," by John O. Duffy and Edgar N. Anderson, paper read at meeting of the 10th Army Human Factors Research and Development Conference, U.S. Army Board for Aviation Accident Research, Fort Rucker, Ala., October 1964.

Research By-Products resulting from this research effort are listed in Part III.

LIMIT—Division No. 1 (System Operations)

Sub-Unit

Adapting Service School Courses for Enlisted Men With Minimal Qualifications

The Effectiveness of Different Training Methods in School Situations, Staff Memorandum by Robert S. Beecroft, September 1955. I
AD-480 457

"Verbal Learning and Retention as a Function of the Number of Competing Associations," by Robert S. Beecroft, J. Exp. Psychol., vol. 51, no. 3, March 1956. I

Previous studies of verbal learning have indicated that interference in learning increases with the number of competing associations. Four paired adjective lists, varying in the number of competing associations per pair were learned by the anticipation method and recalled 24 hours after learning. The results agree with previous findings that competing associations handicap performance early in learning and that intralist similarity does not affect recall.

Effectiveness of Increased Repetition in Classroom Learning, Staff Memorandum by Robert S. Beecroft and Robert Anneser, July 1957; paper read at meeting of MPA, 1957. I

An experiment evaluating the effectiveness of increased repetition of major points in classroom instruction found student achievement increased by this technique.

Special Lesson Plans: Gasoline Engine Fuel System, Staff Memorandum by Robert Anneser and Robert S. Beecroft, February 1958. I

This memorandum contains a series of special lesson plans providing integrated nomenclature and operation instruction on the gasoline engine fuel system. These plans are intended for use by persons who are concerned with gasoline engine maintenance training and may be used in providing such instruction or as a model in developing lessons for similar subject areas. Included are five lesson plans on nomenclature and operation of the fuel system, a plan which condenses three of these hours, and one lesson plan on troubleshooting and maintenance. Furnished as a guide for testing student achievement are three objective paper-and-pencil tests: a Fuel System Nomenclature and Operation Test, a Fuel System Trouble Shooting and Maintenance Test, and a Carburetor and Operation Test.

Basic Electronics for Minimally Qualified Men: An Experimental Evaluation of a Method of Presentation, Technical Report 61, by S. James Goffard, Norman W. Heimstra, Robert S. Beecroft, and Joseph W. Openshaw, February 1960. I
AD-233 596

This study is the last of a series dealing with methods of training designed to improve the achievement in technical courses of men with minimal qualifications for technical training. In this study, the three-week Basic Electronics section of the Field Radio Repair course (MOS 296.1) was reorganized according to the principle of "functional context." No item of information or training was presented until it could be fitted into a context of material already learned; training was in whole-to-part rather than in the conventional part-to-whole order. One group of standard input classes (a total of 184 men) was trained by the functional context method and another group (a total of 202 men) was trained by the conventional method. A battery of 10 tests on basic electronics was administered after the three weeks of training. The functional context training proved to be superior, particularly for men at the lower levels of aptitude for electronics training.

Research By-Products resulting from this research effort are listed in Part III.

LOCK-ON—Division No. 1 (System Operations)
Training of Guided Missiles Operator Personnel

Sub-Unit

"The Development and Evaluation of On-Site Training for Nike Integrated Fire Control Operators," by Myron Woolman, paper read at meeting of APA, 1958. I

A method of training inexperienced Nike integrated fire control (IFC) operators on-site was developed and experimentally tested. The experiment involved 24 Nike batteries, six in each of four training methods (N=424 operators). The four experimental methods were: The Experimental Program, Periodic Evaluation, Experimental Program plus Periodic Evaluation, and Controls (conventional training). Periodic Evaluation consisted of frequent evaluations of operator performance. Operators given the Experimental Program were significantly superior to Controls in both performance (split-half reliability .91) and written test results (split-half reliability .95). Periodic Evaluation offered no significant training benefits.

On-Site Training of Guided Missile Operators, Technical Report 64, by Myron Woolman, August 1960, with Supplement, USARADCOM Integrated Fire Control Training Guide (Illustrative Selections). I
AD-244 250

The study was concerned with developing and testing a method of training Nike IFC operators on site. In a five-month field test, three experimental methods were compared with conventional training. The principal experimental method—Operational Context Training—was incorporated in a *Training Guide* that included (a) a step-by-step breakdown of all operator procedures, (b) specific instructional techniques for use by battery personnel without experience as instructors, and (c) a systematic method of evaluating trainees. Operators trained by the various methods were compared by means of job-sample and written criterion tests, and by other measures. Operators trained by the OCT method were more proficient than those trained by the other methods in the study; CCT-trained operators were as proficient as school-trained personnel with greater on-site experience.

"Dependency on Supervisors, Proficiency and Morale in Guided Missile Batteries," by Myron Woolman, paper read at meeting of APA, 1960. I

A study was undertaken to obtain estimates of the effects of morale and supervisory dependency measures on battery operator proficiency. The subjects used were operators in 24 Nike batteries in the United States. Twelve batteries received "military inspections" and twelve did not. Six measures were available: Four evaluations of operator proficiency, one supervisory dependency measure, and one morale measure. Cross correlations of mean battery scores were made for (a) total batteries, (b) inspected, and (c) non-inspected batteries. Proficiency was not related to morale but was negatively correlated with supervisory dependency for the total sample; in the sub-groups the relationships between variables differed markedly.

On-Site Training of Guided Missile Operators: Evaluation Materials, Research Memorandum by Myron Woolman, October 1960. I

This supplement to Technical Report 64 presents the evaluation materials used to develop and test a training program suitable for use in an operational missile battery setting. Materials include a personnel information form, training proficiency checks, a procedures written test, and an attitude scale.

Research By-Products resulting from this research effort are listed in Part III.

Methods for Improving Navigation Training for Low-Level Flight

"Let's Take a Look at New Project: Task LOWENTRY," by LTC Arne H. Eliasson, *Army Aviation*, vol. 10, no. 8, August 1961.¹

Pictorial Navigation Displays and Low-Altitude Navigation, Consulting Report by Robert H. Wright and Thomas G. Waller, April 1964.

AD-601 711

This report seeks to describe what a pictorial navigation display system for use in Army aviation should do, how it should look, and what tactical and training implications such a device might have. Several devices commercially available are examined. While none of the three displays discussed will meet all of the major requirements, all three systems appear to be steps in the right direction.

"The Effect of Training on Accuracy of Angle Estimation," by T. Gary Waller and Robert H. Wright, paper read at meeting of SEPA, 1964.

"Army Low Altitude Navigation: System Considerations and Procedural Solutions," by Robert H. Wright and T. Harrison Gray, paper read at meeting of the 10th Army Human Factors Research and Development Conference, U.S. Army Board for Aviation Accident Research, Fort Rucker, Ala., October 1964.

The Effect of Training on Accuracy of Angle Estimation, Technical Report 65-8, by T. Gary Waller and Robert H. Wright, August 1965.

AD-619 958

This study examined the feasibility of using direct perceptual estimation on maps to determine angles of drift, and the effect of training on this ability. Subjects were divided into a control group and two training groups, one of which was trained using angles drawn on plain white cards, and the other using angles drawn on both cards and tactical maps. Both training groups initially estimated the size of angles, ranging from 1° to 18°, with a mean absolute error of 2.57° and a mean algebraic error of -0.20°. After training, absolute error was 1.34° and algebraic error was +0.43°. A job aid consisting of reference angles of 5°, 10°, and 15° did not significantly affect performance on map items, although on card items, performance of the training groups shifted from underestimation to slight overestimation of angle size.

The Effects of Map Scale on Position Location, Technical Report 65-9, by Ed Moon Edmonds and Robert H. Wright, September 1965.

AD-623 396

This study was conducted to determine the relationship between field position location and map scale. Two map scales were used--1:25,000 and 1:250,000. Twelve subjects were required to mark their position on a map at each of 12 terrain positions. The task was then repeated, utilizing the other scale map. The error in position location was approximately 10 times greater with the 1:250,000 scale map than with the 1:25,000 scale map. However, a significant scale-by-position interaction was found. It was concluded that maps of 1:100,000 or 1:125,000 scale would best meet the tactical target area requirements of Army aviators, and that the 1:250,000 scale map, with certain format changes, would provide the information necessary for en route tactical navigation over moderate or long distances.

¹Colonel Eliasson was the Unit Chief of the U.S. Army Aviation Human Research Unit.

MAINTRAIN--Division No. 5 (Air Defense)

Sub-Unit

Maintenance Proficiency and Its Relation to Training Procedures for Guided Missile Personnel

Maintenance Personnel and Training Research: A Bibliography, Staff Memorandum by Helen J. Stiles and Robert G. Demaree, March 1958.

Some Problems in the Analysis of Trouble Shooting Behavior, Research Report 2, by Paul G. Whitmore, October 1959.

II

AD-228 316

Data from three previous HumRRO studies (RADAR IV, RADAR VI, and ACHILLES) were pooled and analyzed to identify problems of maintenance and maintenance training. The data consisted of (a) observations of maintenance activities made during the administration of job-sample proficiency tests to M33 and Nike-Ajax fire control system maintenance technicians, and (b) responses to multiple-choice items on a written test given to Nike-Ajax fire control system maintenance technicians. The set of coded categories used in recording activities did not meet the requirements for describing the technician's troubleshooting procedures; consequently, the technician's knowledges and skills could not be clearly inferred. It was not possible to isolate "knowledge" classes for the written test items related to overall proficiency. The generalization of modifications introduced into the M33 FCS experimental training programs to Nike-Ajax IFC training was supported at a very gross level of analysis.

Experimental Comparison of Two Basic Electronics Courses for Fire Control Technicians, Technical Report 60, by Lloyd Hitchcock, Jr., February 1960.

I

AD-233 597

The present study provides further data on the effectiveness of an experimental subcourse in basic electronics developed in earlier research as part of a training program for air defense electronics technicians. One class of trainees was given the standard 12-week subcourse in basic electronics and another received the shorter experimental course; both groups completed the standard program of instruction for maintenance of M33 equipment. Results of performance and written tests revealed no significant differences in proficiency between graduates of the two courses. The shorter basic electronics subcourse is recommended for adoption as standard preliminary instruction in electronic fire control maintenance courses and for possible application to maintenance training programs for other electronic equipment.

"Research on Missile Maintenance Technicians," by P.G. Whitmore and J.P. Rogers, paper read at Symposium, meeting of SWPA, 1960.

Current Practices in Electronics Training in Industry, Research Memorandum by Robert F. Mager, May 1960.

IV

AD-480 549

A Survey of Organizational Maintenance of the Nike Ajax Missile, Research Memorandum by Robert A. Goldbeck, Emanuel Kay, W.L. Williams, Jr., and James P. Rogers, July 1960 (Subcontractor: American Institute for Research).¹

III

"Electronics Maintenance Research," by J.P. Rogers, paper read at Symposium, meeting of RMPA, 1961.

"The Improvement of Trouble Shooting Proficiency Through Improved Maintenance Manuals," by James P. Rogers, paper read at meeting of APA, 1961.

V

An Annotated Bibliography on the Troubleshooting of Electronic Equipment, Research Memorandum by Clinton S. Trafton, March 1962.

V

AD-464 065

¹Dr. Goldbeck and Dr. Kay were employees of the subcontractor; Dr. Williams and Dr. Rogers were on the staff of Division No. 5 (Air Defense).

MAINTRAIN (Cont.)

Sub-Unit

Preparation of MAINTRAIN Troubleshooting Manuals, Working Paper, by James P. Rogers and Julia S. Harris, October 1964. V

The Development and Evaluation of an Improved Electronics Troubleshooting Manual, Technical Report 65-1, by James P. Rogers and H. Walter Thorne, March 1965. AD-614 606 V

To develop a maintenance manual that would permit a trained technician to troubleshoot electronic equipment faster and more accurately, hypotheses were developed about what information should be presented. An experimental manual was prepared for troubleshooting the Nike Ajax and its test equipment; it contained some information not found in conventional manuals and was organized according to when and how information is to be used. An experimental group using the experimental manual was able to troubleshoot faster and more effectively than a control group using standard schematic and functional diagrams and personal notes. A list of desirable contents for troubleshooting manuals was drawn up, and procedures for preparing troubleshooting manuals were written.

Research By-Products resulting from this research effort are listed in Part III.

MALT--Division No. 7 (Language and Area Training)

Sub-Unit

Construction and Evaluation of a Short, Automated Vietnamese Language Course

"Design of a Short, Automated Course in Vietnamese: An Interim Report," by Alfred Fiks, paper read at the Inter-Agency Language Roundtable, Minnowbrook Conference Center, Syracuse University, November 1963.

Some Language Aspects of the U.S. Advisory Role in South Vietnam, Research Memorandum by Alfred I. Fiks and John W. McCrary, November 1963. AD-434 056

"A Psychological Approach to the Design of a Short, Self-Instructional, Functional Course in a Foreign Language," by Alfred I. Fiks, paper read at International Congress of Applied Psychology, Ljubljana, Yugoslavia, August 1964.

An important question, both pedagogically and linguistically, is: Can a student achieve some predetermined skill levels in understanding and speaking a tonal language like Vietnamese using only programmed, audio-lingual instructional material (i.e., without the benefit of a live instructor and/or any printed material)? The present report describes the methodology used to generate the content matter and construct such a language course. The psychological and linguistic rationale for the techniques used is discussed. Problems in shaping foreign language comprehension and verbal production skills are explored. Empirical evaluation of the course, to determine how much of the foreign language phonology, syntax, and vocabulary is learned by actual students, is described.

"Some Psychological Aspects in Foreign Language Training," by Alfred I. Fiks, paper read at meeting of APA, 1965.

While constructing a programmed Vietnamese course, these research issues were investigated: Does prior listening exposure to phonology of a foreign language (FL) facilitate learning to speak the FL? How much variability in FL speaking test scores is attributable to heterogeneity of native listeners and to sequence effects? What factors attenuate the correlation between FL aptitude and achievement measures? Regarding the first question, no facilitation was demonstrated. To the second, listeners differed by as much as 25% from each other; test scoring sequence accounted for a 13% difference. Thirdly, r attenuation from $+ .79$ to $-.24$ is attributed to differential aptitude ranges.

"Development of a Short, Practical, Programmed Vietnamese Course," by Alfred I. Fiks, paper read at annual Army Human Factors Research and Development Conference, Fort Bragg, N.C., October 1965; in conference proceedings, *Report of the Eleventh Annual Army Human Factors Research and Development Conference*, October 1965.

This presentation reports the goals, approach, and results of developing a Vietnamese language course that could be taught without the presence of an instructor. The 50-lesson course that was developed was given to 19 Military Assistance Training Advisor students, all officers at the Special Warfare Center. These students did as well as or better than a traditionally trained group when both were tested on the Army Language Proficiency Test.

Research By- **jects resulting from this research effort are listed in Part III.**

MAPREADING—Division No. 2 (Armor)

Sub-Unit

Assessment of Effectiveness of Basic Map-Reading Training

The Map-Using Proficiency of Basic Trainees, Technical Report 11, by Robert B. Tallarico, William E. Montague, and Victor H. Denenberg, September 1954. AD-63 878

Objectives of this study were to (1) determine how well basic trainees learn from the standard ATP course (a) to *read* maps fully and accurately and (b) to *utilize* a contour map and lensatic compass successfully in the field, and (2) develop a training method which would increase trainee map and compass proficiency. Proficiency was tested by means of written and performance tests. It was found that low-aptitude trainees did not learn satisfactorily in the standard ATP course; men of high aptitude did. A lesson plan employing five "critical skills" was developed but its importance was not adequately tested.

"The Problem of Simple Combination Scores in Measurement," by Eugene A. Cogan, paper read at meeting of APA, 1955.

Research By-Products resulting from this research effort are listed in Part III.

MAPUSING—Division No. 2 (Armor)
The Mapusing Proficiency of Army Personnel

Sub-Unit

Training Basic Combat Soldiers in the Critical Skills of Map Using, Staff Memorandum by Robert B. Tallarico and Bobby E. Palk, April 1955. I
AD-480 550

"A Factor Analysis of Field Navigation Skills," by Donald C. Findlay, Eugene G. Roach, and Eugene A. Cogan, paper read at meeting of MPA, 1956. IV

"Identification of Important Skills in Field Navigation," by Donald C. Findlay, Eugene G. Roach, and Eugene A. Cogan, paper read at meeting of APA, 1956. IV

To identify important skills in field navigation, and to test validity of a short test of field navigation, 96 trainees took tests of six map-compass skills, two spatial relations tests, and a criterion test and a short test of field navigation. Subjects' scores on these tests and three classification tests were factor analyzed (centroid) and yielded five factors: Field Navigation, Verbal-Arithmetic Reasoning, Field Skills, Spatial Relations, and Compass Skills. Since criterion and short tests loaded only on Field Navigation, the short test appeared valid. Skills most closely identified with Field Navigation were direction estimation and contour visualization.

Several Methods of Teaching Contour Interpretation, Technical Report 35, by F.J. McGuigan and James W. Grubb, January 1957. V
AD-122 271

Three ways of representing terrain (terrain board, 3-D slides, and 2-D slides) and two ways of representing contours (standard flat relief map and three-dimensional relief map) were tested for effectiveness in teaching a map user how to visualize terrain features. The experimental training method which consistently led to the greatest proficiency combined use of 2-D slides and 3-D relief maps.

"An Investigation of Several Methods of Teaching Contour Interpretation," by F.J. McGuigan, J. Appl. Psychol., vol. 41, no. 1, February 1957. V

This study seeks to determine: (a) the relative effectiveness of several methods of teaching map users to interpret contour lines, (b) whether, for most effective learning, a learner should be presented with a concrete or abstract representation of an object that he must learn to visualize through the use of a symbol, and (c) whether the symbol which he uses to visualize the object should be abstract or concrete. Two companies of 162 subjects each were trained by the use of various combinations of concrete or abstract representations of terrain (a terrain board, two-dimensional slides and three-dimensional slides of the terrain), and concrete or abstract symbols (contour lines on two-dimensional or three-dimensional maps). Learning resulting from these methods was compared to the Standard Army method, and a No-Training (control) condition. The results showed that the training method involving representation of terrain by two-dimensional slides, and presenting the symbol on a three-dimensional map, generally led to highest proficiency.

Identification of the Important Skills in Daylight Land Navigation, Technical Report 40, by Donald C. Findlay, Eugene G. Roach, and Eugene A. Cogan, July 1957. IV
AD-137 782

The aims were to (a) identify the skills most important in effective land navigation and (b) try out a short, convenient method of testing land navigation ability. Ninety-six recent graduates of basic combat training were scored on 14 tests: the Map Patrol Test (a comprehensive test against which performance on the other tests was measured), the Location Test, two compass skills tests, five location skills tests, and five standard aptitude tests. Location skills, particularly direction estimation and the ability to visualize terrain from contour lines, proved more important than compass skills. The Location Test method offers promise as a way of giving instruction and practice in location skills, and of testing ability in land navigation when longer, free-movement tests are not feasible.

MAPUSING (Cont.)

Sub-Unit

A Survey of Map Skills Requirements, Technical Report 43, by Eugene A. Cogan, Norman E. Willmorth, and Donald C. Findlay, September 1957.

AD-144 863

II

The degree to which each of 53 map skills and map skill applications is required for infantry, armor, and reconnaissance combat personnel was investigated for each of seven levels of responsibility, ranging from squad members (tank crewmen in armor and reconnaissance units) to battalion commanders. The summary derived as to the relative importance of the 53 skills may be used as a guide in developing or revising training programs pertaining to map skills, and as a means for assessing the degree to which tactical doctrine and actual map using practice correspond.

Research By-Products resulting from this research effort are listed in Part III.

MEDICORPS—Motivation, Morale, and Leadership Division
Research on Career and Recruitment Problems of the Army:
Opinion Survey of Army Medical Men

Sub-Unit

Medical Officers' Opinions on Professional and Personal Problems of Army Service, Special Report 3, joint report of Research Division, Office of Armed Forces Information and Education, Department of Defense, and Motivation, Morale, and Leadership Division, HUMPRO, July 1953.

At the request of the Surgeon General, an Army-wide survey was made of Medical Corps officers to ascertain: (a) their attitudes toward military service and military medicine and their suggestions for improvements; (b) the degree of interest in continuance in the Medical Corps after required service was completed; (c) how well informed and how interested they were in Medical Corps advanced training programs; (d) background information on general characteristics of Medical Corps officers. It was found that the attitudes and morale of regular Medical Corps officers differed from those of reserve officers but common areas do exist which furnish a basis for integration of the two groups.

Supplementary MEDICORPS Study Findings for Medical Officers in Various Types of Installations Within the Various Theatres, Staff Memorandum by Don Cahalan, July 1953.

MELITE—Psychological Warfare Division
Pilot Research on a Comparative Study of Military and
Scientific Leaders in Selected Countries

Satellite Generals: Some Vulnerabilities to Psychological Warfare [U], Staff Memorandum by Pio D. Uliassi, July 1955 (CONFIDENTIAL).

METHOD—Division No. 1 (System Operations)
Research for Programed Instruction in Military Training

Sub-Unit

Organizing the Presentation of Concepts in Education and Training: The Lattice Technique, Research Memorandum, November 1962. I
AD-480 548

"Verbal Paired-Associate Learning as a Function of Grouping Similar Stimuli or Responses," I
by Iris C. Rotberg and Myron Woolman, *J. Exp. Psychol.*, vol. 65, no. 1, January 1963.

Verbal paired-associate learning was measured when similar or dissimilar stimuli were grouped, and when similar or dissimilar responses were grouped. The following measures were employed: number of correct responses; type of errors made, i.e., errors indicating confusion between similar items and those indicating confusion between dissimilar items. The results indicated that learning was better when groups of stimuli were composed of similar items rather than dissimilar ones. The findings were interpreted in terms of discrimination and coding of the similar items.

"An Experimental Hypothesis of Intra-List Generalization," by Iris C. Rotberg, *Psychol. Rep.*, vol. 13, no. 2, October 1963. I

Gibson (1940) has hypothesized that stimulus generalization during discrimination learning must increase before it can decrease. This hypothesis can be either supported or rejected, depending on the procedures and measures used in testing it. This article suggests a different approach to the measurement of the trend of generalization during discrimination learning. The proposed methodology compares similar and dissimilar confusion errors on the first learning trial and the rates of decrease of the exponential functions of the two error types on subsequent trials. The implications of the methodology for transfer and predifferentiation studies are discussed.

"Supplementary Report: Verbal Paired-Associate Learning as a Function of Grouping Similar Stimuli or Responses," by Iris C. Rotberg, *J. Exp. Psychol.*, vol. 67, no. 3, March 1964. I

Previous experiments, in which similar and dissimilar stimulus groupings were compared, indicated the superiority of similar stimulus grouping. In those experiments, the similarity categories were clearly isolated during learning. In the present experiment, procedures were employed that provided a less marked separation of the similarity categories. Although the results confirmed the findings of the previous experiments in certain respects, similar stimulus grouping was not superior to dissimilar grouping. It is hypothesized that the superiority of similar stimulus grouping depends on the functional isolation of similarity categories.

"Experimentation and Programming," by Iris C. Rotberg, *AV Communication Rev.*, vol. 12, no. 1, Spring 1964. I

"Effects of Verbalization and Information on Problem Solving in Programmed Learning," II
by Robert J. Seidel and Iris C. Rotberg, paper read at meeting of APA, 1964.

Subjects were required in programed instruction to learn to write computer programs (CPs) without verbalization, or while additionally stating the rules they were using to write the CPs, or simply naming these rules. In addition, subjects served under a prompting or confirmation condition. Most subjects scored about 80% or better on the criterion tests. During learning, prompting was superior to confirmation, but the reverse appeared on the criterion. Subjects stating rules during training did worse on tests than subjects naming rules or subjects with neither requirement. Data are discussed in terms of dangers in generalizing from P-A or serial learning to conceptual learning.

METHOD (Cont.)

Sub-Unit

"Effects of Written Verbalization and Timing of Information on Problem Solving in Programed Learning," by Robert J. Seidel and Iris C. Rotberg, *J. Educ. Psychol.*, vol. 57, no. 3, June 1966.

II

Sixty high school students were trained on computer program (CP) writing. They were run in a 3×2 factorial design concerned with effects of (a) writing explicitly the rules used in constructing the CPs, (b) writing the names of these rules in conjunction with writing CPs, or (c) writing only the CPs. The other factor was prompting vs. confirmation. During learning, prompting was significantly superior to confirmation, but a reverse tendency appeared in the criterion tests. Results suggest that naming the rules in addition to writing CPs during training aids later performance when writing more complex CPs on the criterion tests. Writing rules during training actually hindered subjects in writing CPs later on the criterion tests.

MOBILITY—Division No. 2 (Armor)

Sub-Unit

Methods for Improving Vehicle Maintenance

***The Effect of Fuel Conservation Training on M-48 Tank Gasoline Consumption*, Staff Memorandum by Howard C. Olson and Donald J. Baerman, September 1955. AD-480 547** II

***Malfunction Indicator Lists for the M48A1 Tank*, Staff Memorandum by Ronald C. Kelsay, Ronald G. Shock, and Donald F. Haggard, May 1958. AD-480 551** VI

***A Survey of Organizational Maintenance of the Medium Tank*, Technical Report 45, by Darvin L. Winick, Carson Y. Nolan, and Benjamin B. Bernstein, May 1958. AD-202 156** III

As one step in improving the maintenance of armor equipment, a study was made of organizational maintenance, and of tank maintenance problems and training methods. The M48 tank equipment system, types of maintenance operations, and maintenance activities of organizational personnel in four tank battalions were analyzed. It was found that (a) unit maintenance records were not a satisfactory index of maintenance activity; (b) checking, inspecting, and servicing constitute the bulk of organizational maintenance; (c) the activities of turret and track vehicle mechanics overlap; (d) equipment problems were mentioned most often, and training problems least often; (e) supervised job practice was the preferred training method.

***"Gasoline Economy for Armor,"* by Howard C. Olson, *Armor*, vol. LXVIII, no. 2, March-April 1959.** II

***The Development of Performance Criteria for Turret Mechanics*, Research Memorandum by Jack Mumford and John P. Smith, July 1961. AD-477 647L** X

***The Effectiveness of Visual Demonstrations of Signs of Malfunction and Wear in Equipment*, Research Memorandum (revised) by Donald F. Haggard and Ronald G. Shock, May 1962.** VI

***The Performance of Organizational Maintenance by Track Vehicle Mechanics and Maintenance Sergeants*, Technical Report 87, by John P. Smith, March 1964 (For Official Use Only). AD-478 720L** IV-V

As one step in improving vehicle maintenance in armor units, an 8-hour performance test on troubleshooting, testing, adjusting, and inspecting was given to 413 track vehicle mechanics (TVMs) and 69 maintenance sergeants. Average successful test performance by the TVMs was lower than had been expected and was not significantly affected by amount of job experience. The men who had had a TVM course showed no more gain in proficiency from job experience than did those who had not had such a course. The results were confirmed by a questionnaire given to 15 Ordnance Corps civilian maintenance technicians. For diagnostic purposes, errors were analyzed by types and suggestions for improving training were derived from the test results. (U)

Research By-Products resulting from this research effort are listed in Part III.

MOONLIGHT—Division No. 4 (Infantry)

Sub-Unit

Improved Methods for Training the Soldier Under Limited Visibility Conditions

MOONLIGHT II: Training the Infantry Soldier to Fire the M1 Rifle at Night, Technical Report 15, by Francis E. Jones and CWO William F. Odom, December 1954. AD-57 972 II

The objective of this study was to develop a realistic method for training individuals to fire effectively at night, particularly with the M1 rifle. Of five experimental methods tested, the best was based on alignment of the rifle without the use of sights. Under starless and starlight natural illumination, use of this method resulted in a 60% to 210% (depending on target type) increase in accuracy over the standard (day) method.

MOONLIGHT IV: Training the Rifle Squad in Night Technique of Fire, Technical Report 17, by Edgar L. Shriver, John Sivy, and Henry S. Rosenquist, May 1955. AD-72 721 IV

Methods for training rifle squads in controlled fire for offensive and defensive night operations were developed. Squads trained by the experimental methods were two to three times as effective as squads not so trained. In addition, several alternative combinations of rapid-fire weapons were compared with TOE weapons; TOE-equipped squads performed as well as, or better than, squads otherwise armed.

"Nighttime Coordination of Rifle Fire by Systematic Rules Rather Than by Control of a Leader," by Edgar L. Shriver, John Sivy, and Henry Rosenquist, paper read at meeting of APA, 1955. IV

An Investigation of Individual Night Rifle Firing Under Illumination Ranging From No Moon Through Full Moon, Staff Memorandum by John Sivy and John E. Taylor, August 1956. AD-627 219 XI

Experimental Training in Night Technique of Fire and Squad Tactics, Research Memorandum, November 1959. AD-627 220 XII

Identification of Stationary Human Targets, Research Memorandum by John E. Taylor, December 1960. AD-627 217 I

Research By-Products resulting from this research effort are listed in Part III.

**Studies on Organization and Operation of Electronics
Maintenance Units**

A Description of Work Flow in Support of a HAWK Missile System, Research Memorandum
by Edgar L. Shriver, Robert C. Trexler, Frank L. Hibbits, Robert Lodge, Peter Gillson,
and Arnold Pressgrove, November 1964.

AD-453 923

I

This report describes in a block diagram format the flow of work which occurs in electronics maintenance in a Hawk missile Direct Support Unit (DSU) and Battery. The description is based on detailed observation of a single unit, confirmed by observations of other units, supported by discussion with unit personnel, literature review, and empirical simulation of the work flow process. In addition to job flow charts and diagrams for the entire system, individual job flow charts are presented for the battery mechanic, the battery supply clerk, the direct exchange clerk, the job order clerk, the ordnance repairman, and the technical supply clerk.

"Ten New Concepts for Maintaining Electronic Systems," by Edgar L. Shriver and Robert C. Trexler, paper read at meeting of Army Maintainability Group, Washington, July 1965.

Research in Support of Training of Potential Noncommissioned Officers***A Follow-up Study of NCO Leaders School Graduates, Information Report by Carl H. Rittenhouse, September 1953.***

AD-486 297

Two matched groups of enlisted men, one composed of graduates of NCO Infantry Leaders Schools, were compared on the characteristics of ranks, assignments, and awards. Although the Leaders School graduates attained a somewhat higher average final rank, received more infantry assignments, and received more combat infantry badges, little clear evidence of superior leadership among Leaders School graduates was found in the comparisons.

Observations on a Number of Noncommissioned Officer Academies, Staff Memorandum by Richard P. Kern, May 1958.

AD-480 234

Ten Noncommissioned Officer Academies were visited; programs of instruction were reviewed; and staff members, graduates, and company commanders of graduates were interviewed. Students in any one class may reflect considerable heterogeneity as regards age, rank, length of service, basic Military Occupational Specialty, knowledge and experience in current MOS, type of leadership position held, amount of experience in leadership positions, educational background, and general and intellectual ability. The predominant emphasis in the orientation of the training programs is towards the role of the noncommissioned officer as an instructor.

A Critical Incident Study of Infantry, Airborne, and Armored Junior Noncommissioned Officers, Staff Memorandum by Morris Showel and Christian W. Peterson, July 1958.

AD-480 232

In the development of a junior noncommissioned officer training program, approximately 1600 critical incidents were listed by interviewing 135 persons subordinate to and 135 persons superior to junior NCOs. Researchers divided the incidents into some 4000 specific behaviors which appeared to contribute to the subjects' evaluations ("good" or "bad") of the incidents. These behaviors were classified into nine general areas: planning and foresight, informal teaching and briefing, supervising and checking, correcting and rewarding or punishing, manner of dealing with subordinates, concern with welfare of men, attitude toward job, deportment, and technical job knowledge and ability.

"The Use of Follower Stooges for Field Evaluation of Leadership Ability," by Paul D. Hood, paper read at meeting of APA, 1959.

Results of this experiment indicate that economies may be introduced through the use of follower stooges who simultaneously serve as evaluators. Global evaluations of "leader potential" provided by follower stooges correlated .89 with standardized behavior checklists of leader behavior. Reliabilities of the global ratings were .9. When only global evaluation is desired and only minimal attention need be directed to highly specific behavior, it seems feasible to dispense with both the development of behavior checklists and trained observer-raters. This practice seems questionable for administrative assessment but may have utility in certain research applications.

"Interpersonal Knowledge and Rated Leader Potential," by Morris Showel, J. Abnorm. Soc. Psychol., vol. 61, no. 1, July 1960.

This study investigated the relationship between the possession of interpersonal knowledge about others and the ratings received as to leader potential. Four measures of interpersonal knowledge and five measures of leader potential were secured. Subjects were two platoons of soldiers completing a six-month tour of duty in the Army. The data indicate that the more interpersonal knowledge nonleader trainees had, the higher was the leader potential ratings they received from trainee leaders and trainee nonleaders. The correlation drops when intelligence is controlled, but that between total knowledge possessed and ratings received from one group of

trainee leaders, trainee sergeants and guides, still remains statistically significant. It is hypothesized that the ratings given by trainee sergeants and guides are more valid than the ratings given by the cadre, by trainee squad leaders, and by trainee nonleaders. Additional findings were that trainee squad leaders had more interpersonal knowledge and received higher leader potential ratings than trainee nonleaders. Trainee squad leaders and trainee nonleaders did not differ significantly in regard to intelligence.

Research on the Training of Noncommissioned Officers. Progress Report: NCO I, Research Memorandum by Paul D. Hood, July 1960. I

AD-486 305

This report covers the first year of work in research designed to improve the caliber of noncommissioned officer performance in the Army by establishing appropriate curricula and techniques for the development of NCOs as early as possible in their Army careers. The report includes an extensive examination of the Army's training system for enlisted personnel and methods of selecting and training NCOs; notes on a comprehensive literature review; formulation of a detailed job description of NCO leadership function; and development of a textbook reference manual which evolved into USCONARC Pamphlet 350-24, *A Guide for the Infantry Squad Leader*.

"Task NCO: A Report on Some Army Research in the Leadership Training Area," by Paul D. Hood, paper read at the Leadership Conference, U.S. Air Force Academy, Colo., April 1961.

This paper presents an outline of the general mission of HumRRO Division No. 3, significant past work, research in progress at that time, problems for leadership research, and current and projected research for Work Unit NCO.

"The Design for a Parametric Study of a Leadership Training System," by Paul D. Hood, paper read at meeting of APA, 1961.

A five-year research program, now nearing completion, has undertaken a parametric investigation of factors involved in evaluating a leadership preparation system for potential Army small unit leaders. The factors under experimental control include: aptitude and interpersonal effectiveness of leader candidate input, duration of leadership preparation phase, methods of leadership training, cost of training, amount of training given OJT instructors, and differences in job requirements. The experiment involves approximately 500 trainee leaders and 5,000 followers who train together in squads and platoon units for eight weeks. The interaction of several organization levels on leadership is also under study.

Report of the Assessment Study Area of NCO II, Research Memorandum by Paul D. Hood, February 1963. II

AD-486 303

The problems of leadership selection, prediction, and evaluation were examined in collaboration with the Personnel Research Branch (PRB) of the Adjutant General's Office. Provisional measures of leadership potential among recruits were applied as such measures emerged from ongoing PRB research. Data were collected on 230 Reserve trainees during their BCT, AIT, and BUT cycles. Information was obtained on consistency of sociometric and superiors ratings as measures of leader potential; nature of performance tests as indicators of military proficiency; value of written tests as selection and evaluation measures; value of the Army Classification Battery as possible selection measures; usefulness of self-evaluation measures; and problems of assessing motivation interests and attitudes relevant to NCO leader training.

Report of the Leadership Orientation and Motivation Study Area of NCO II, Research Memorandum by Morris Showel, April 1963. II

AD-480 233

This study considered two interrelated general problems: (a) how to impart to the inexperienced soldier in basic training a positive attitude and motivation toward

leadership training; and (b) how to cope with the practical problems of motivating the Army basic trainee to enter willingly into a leader development program, train in it, and continue under his own motivation. Orientation and motivational materials were developed.

Report of the Integrated and Informal Leadership Training and the Fundamental Leadership Skills Study Areas of NCO II, Research Memorandum by Samuel Sloan, Eddie Syx, Warren Weiss, and Paul D. Hood, May 1963.

AD-480 231

II

These studies were concerned with the means available for introducing or expanding upon opportunities for junior NCO preparation training that might be integrated with the normal training context. In addition, a set of elementary skills which all junior leaders should possess was defined, the contributions of these skills and methods of teaching them were developed, and the problems of introducing such training methods into the AIT program were examined.

Leadership Climate for Trainee Leaders: The Army AIT Platoon, Research Memorandum by Paul D. Hood, August 1963.

AD-628 962

III

This interim report describes leadership climate measures and how they interact with other measures collected in a field experiment related to the development of a Leader Preparation Program for potential junior noncommissioned officers. The several measures of trainee leaders' and trainee followers' morale and esprit displayed among themselves and with the cadre leadership input measures an intricate and subtle pattern of relationships involving several correlations. There was no evidence of a direct relationship between platoon leadership climate and trainee performance on the AIT Graded Proficiency Test. Implications for further analyses of the field experiment data are discussed.

The Effect on Training and Evaluation of Review for Proficiency Testing, Research Memorandum by Richard P. Kern and Paul D. Hood, August 1964.

AD-607 545

II

A pilot study was conducted to assess aspects of the end-of-cycle (Advanced Individual Training) Graded Proficiency Test of military proficiency, used to evaluate experimental training for the potential noncommissioned officer. The primary purposes of the study were (a) to assess the effects of concentrated review for the test, and (b) to estimate the effects of such review on retention and learning in Basic Unit Training. The results of the study suggest the desirability of using review techniques other than those narrowly focused on test content.

Research on the Training of Noncommissioned Officers, A Summary Report of Pilot Studies, Technical Report 65-17, by Paul D. Hood, Richard P. Kern, and Morris Showel, December 1965.

AD-631 208

II

As part of a continuing research effort on junior NCO leadership preparation training for advanced basic trainees, exploratory studies were conducted on: (a) problems of selection and assessment of potential leaders among new recruits, (b) feasibility of course compression within the Light Weapons Infantryman MOS training to permit introduction of leadership preparation material, (c) development of an orientation program and motivational techniques for prospective leadership candidates, (d) definition of leadership skills fundamental to job performance at the junior NCO level and appropriate for training at the AIT level, and (e) exploration of methods for introducing junior NCO preparation within the Advanced Individual Training program. The studies yielded preliminary information relative to junior NCO leadership training on aptitude and sociometric ratings as promising selection factors, possible improvements in training methods, the need for development of criteria to assess technical proficiency and leadership skills, and the relation between training environment and effective leadership performance.

Research By-Products resulting from this research effort are listed in Part III.

NICORD—Division No. 1 (System Operations)

Sub-Unit

Training of Ordnance Guided Missile Maintenance Personnel

Troubles Reported by Electronics Repair Personnel in Nike Ordnance Detachments, Staff Memorandum, March 1957.

AD-482 318

Ordnance Nike Detachment Electronics Maintenance Personnel: Analysis of Activities With Implications for Training, Staff Memorandum by William E. Montague and Ralph H. Kolstoe, May 1957.

AD-628 165

Progress Report on Task NICORD, briefing booklet [by A. James McKnight], June 1962.

AD-638 308

"Analysis of Electronic Maintenance Tasks," by A. James McKnight and Patrick J. Butler, paper read at meeting of APA, 1963.

Maintenance tasks imposed by the Nike missile system were subjected to a systematic analysis to determine appropriate training requirements. The method of analyzing tasks involved the prediction of equipment failures together with the determination of human inputs and required outputs. From this analysis the most appropriate mediating knowledges were identified. An experimental training program based upon results of this analysis was constructed and administered in comparison with the standard Army training program. The result was a 25% reduction in average time required for repair, and a 40% reduction in overall training time.

Identification of Electronics Maintenance Training Requirements: Development and Evaluation of an Experimental Ordnance Radar Repair Course, Research Report 15, by A. James McKnight and Patrick J. Butler, December 1964.

AD-487 167

To identify the requirements most appropriate for Ordnance electronics maintenance training, methods of analyzing electronics maintenance tasks were developed. The process included system, task, and knowledges and skills analyses, and determination of training objectives. A representative MOS, Nike Track Radar Repairman, was analyzed by these methods and the results reflected in a 22-week experimental course; more emphasis was placed on practical maintenance procedures and certain technical aspects, and less on circuit operation theory. Graduates of the experimental course surpassed graduates of the 39-week standard course on an overall job-sample measure, and on troubleshooting the radar system and components. They ranked almost as well as field-experienced repairmen in troubleshooting radar components, but somewhat below them in other areas tested. It was concluded that the kinds of content identified in the NICORD analysis need to be given greater emphasis in current electronics maintenance training.

OBSERVE—Division No. 6 (Aviation)¹

Sub-Unit

Improved Methods for Training Aerial Surveillance Personnel

§ "Research Strategy in Investigating Aerial Surveillance Systems," by George D. Greer, Jr., and John A. Whittenburg, paper read at meeting of APA, 1958 (Subcontractor: Human Sciences Research, Inc.).² I

A Field Test of Visual Detection and Identification for Real and Dummy Targets, Research Memorandum by John A. Whittenburg, Alvin L. Schreiber, and CPT B.F. Richards, April 1959 (Subcontractor: Human Sciences Research, Inc.).³ I
AD-637 244

"A Field Study Comparison of Visual Search Methods in Aerial Observation," by Francis H. Thomas, Paul W. Caro, Jr., and James M. Hesson, paper read at meeting of APA, 1959.

An earlier study suggested that aerial visual search was made relatively ineffective by prolonged fixation upon sighted target objects. When the observer possessed the goal-set to "find a target," upon the realization of this goal, his search activity momentarily ceased. By reorienting the observer's goal-set "to visually cover all the search area," it was assumed more targets could be sighted. By emphasizing this latter goal and by providing the observer with techniques for its accomplishment, previously untrained aerial observers were able in in-flight observation to match their classroom proficiency in target recognition accuracy.

Research on Human Aerial Observation. Part I: Summary, Research Memorandum by John A. Whittenburg, Alvin L. Schreiber, John P. Robinson, and Peter G. Nordlie, July 1960 (Subcontractor: Human Sciences Research, Inc.). I
AD-479 196L

Research on Human Aerial Observation. Part II: Description of Tactical Field Test, Research Memorandum by John A. Whittenburg, Alvin L. Schreiber, and CPT Barton F. Richards, July 1960 (Subcontractor: Human Sciences Research, Inc.).³ I
AD-637 147

Research on Human Aerial Observation. Part III: Summary Data From Tactical Field Tests, Research Memorandum by John A. Whittenburg, Clive Barlow, Kenneth L. Deveney, Robert D. Warne, and Alvin L. Schreiber, July 1960 (Subcontractor: Human Sciences Research, Inc.).⁴ I
AD-452 708

"Requirements for Research on Uses of the Unaided Eye in the Collection of Battlefield Information," by Francis H. Thomas, paper read at Visual Search Symposium, meeting of NRC Vision Committee, Washington, April 1961; in *Visual Problems of the Armed Forces*, Milton A. Whitcomb (ed.), National Academy of Sciences, National Research Council, April 1961. I

"Aerial Observer Problems," by Francis H. Thomas, paper read at 7th Annual Army Human Factors Engineering Conference, University of Michigan, October 1961.

"Let's Take a Look at the Basic Skills of Aerial Observers," by LTC Arne H. Eliasson, *Army Aviation*, vol. 10, no. 11, November 1961.⁵

Training Research on Low Altitude Visual Aerial Observation: A Description of Five Field Experiments, Research Memorandum by Francis H. Thomas and Paul W. Caro, Jr., July 1962. I
AD-624 015

¹This Work Unit was initiated at Division No. 1 (System Operations). The symbol § indicates an item prepared at Division No. 1.

²George D. Greer, Jr., was on the staff of Division No. 1 (System Operations) and John A. Whittenburg was an employee of the subcontractor.

³John A. Whittenburg and Alvin L. Schreiber were employees of the subcontractor; Captain Richards was the HUMRRO Military Advisor.

⁴John A. Whittenburg and Alvin L. Schreiber were employees of the subcontractor; SP 4 Clive Barlow, SP 4 Kenneth L. Deveney, and PFC Robert D. Warne were assigned to the Aviation Unit.

⁵Colonel Eliasson was Unit Chief of the U.S. Army Aviation Human Research Unit.

OBSERVE (Cont.)

Sub-Unit

Low Altitude Aerial Observation: An Experimental Course of Instruction, Technical Report 80, by Francis H. Thomas, October 1962.

AD-287 188

I

A field test, in which combat situations were simulated, was administered to aerial observers as a means of identifying the basic skills involved in low altitude aerial observation. The main skill areas were found to be visual search, target recognition, geographical orientation, and target location. Methods and techniques for teaching the identified skills were developed and evaluated in five field experiments, and were incorporated in an aerial observer training course. In a final evaluation, students trained under the experimental course performed as well as experienced observers who had been trained in the conventional program.

Training Materials for Aerial Observer Instruction in Basic Visual Skills, by CPT James M. Hesson and Francis H. Thomas, October 1962 (Supplement to Technical Report 80, Low Altitude Aerial Observation: An Experimental Course of Instruction).

I

"Programmed Learning and Low Altitude Observation," by Peter B. Dawkins, paper read at meeting of APA, 1963.

An Army training course on low altitude aerial observation was converted into programed format. The programed content consisted of both verbal material and perceptual material, i.e., photographs and maps. Criterion testing of an experimental group (N=10), who took instruction, and a control group (N=10), not taking instruction, revealed learning gains in Target Location accuracy of approximately 50%. A 47% reduction in Target Location response time accompanied the gains in accuracy. Study time was less for programed compared to conventional instruction (15 versus 16 hours) despite increased content in the programed course.

"Automated Education in the Training of Low Altitude Aerial Observers," by Peter B. Dawkins, paper read at meeting of the 10th Army Human Factors Research and Development Conference, U.S. Army Board for Aviation Accident Research, Fort Rucker, Ala., October 1964.

II

Programed Instruction and Low Altitude Aerial Observation, Research Report 14, by Peter B. Dawkins, December 1964.

AD-486 730

II

An Army training course on low altitude aerial observation was converted into programed format. The programed content consisted of both verbal and visual (i.e., photographs and maps) material, on four basic aerial observer skills. Criterion testing on target location indicated that the group of students receiving the experimental training made reliable learning gains, in comparison with a control group which did not receive the training. A reduction in time required to locate targets accompanied the increase in accuracy. On the average, study time for the self-paced programed course was less than that required for the classroom version of the course (15 hours vs. 16 hours).

Research By-Products resulting from this research effort are listed in Part III.

OCS—Division No. 3 (Recruit Training)

Sub-Unit

An Investigation Into the Characteristics of Qualified Applicants for Officer Candidate Schools and the High Attrition in These Schools

"A Method of Estimating the Intercorrelations Between Scales on the Strong Vocational Interest Blank," by Milton G. Holmen, paper read at meeting of WPA, 1953.

Attitude and Information Patterns of OCS Eligibles, Research Memorandum 2, by Milton G. Holmen and Robert V. Katter, October 1953.

AD-112 382

To determine reasons for the low application rate and the high attrition rate in officer candidate schools, attitudes of eligibles toward OCS schools were assessed and the amounts and accuracy of their information about the schools were surveyed. It was learned that (a) most eligibles overestimated the academic requirements and underestimated the leadership requirements; (b) longer service obligation was the most important deterrent to applying; (c) personal advancement and self-improvement were the most important attractions.

"A Factor Analysis of Criterion Oriented Ratings," by Robert V. Katter, paper read at meeting of WPA, 1954.

"Personality Correlates of Leadership," by Ann M. Jones, paper read at meeting of WPA, 1954.

"The Relative Efficiency of Different Types of Items in Special Purpose Interest Tests," by Milton G. Holmen, paper read at meeting of WPA, 1954.

"Some Aspects of Commonality of Social Perception," by Irving F. Richardson, paper read at meeting of WPA, 1954.

Infantry OCS Evaluations and Combat Performance, Technical Report 8, by Robert V. Katter and Milton G. Holmen, June 1954.

AD-39 532

To determine which OCS evaluation techniques are useful in predicting performance of lieutenants in combat divisions, ratings by commanding officers were obtained on the performance of Infantry OCS graduates who served as officers in combat divisions in Korea. These ratings were compared with eight OCS ratings and four pre-OCS ratings. Performance in combat divisions was predictable, though not accurately, from student, platoon leader, and company commander ratings, and final class standings. However, academic scores in OCS, physical efficiency scores, rifle marksmanship scores, or number of demerits did not prove to offer a basis for prediction. The findings emphasize the need for developing measures which will predict combat performance with accuracy for use in OCSs.

The Effect of Different Methods of Motivating Men to Apply for OCS, Technical Report 9, by Irving F. Richardson and Milton G. Holmen, July 1954.

AD-72 744

The effects of different methods of motivating men to apply for Officer Candidate School were investigated. The experimental motivating conditions were (a) an intensive information program, (b) a buddy nomination procedure, and (c) a combination of conditions (a) and (b). These methods were compared with concurrent normal recruitment results. The study indicates that the rate of application is lower for eligibles when they have received extensive orientation than when they have not. The use of buddy nomination procedure tended to increase the rate of application for OCS.

The Relationship Between Leaders' Course Evaluations and OCS Evaluations, Staff Memorandum by Ann M. Jones, August 1954.

AD-486 300

During 1952 and 1953 approximately one half of the men attending the Army officer candidate schools had completed one to eight weeks of a Leaders' Course prior to entering OCS. The Leaders' Schools were intended primarily for leadership training

at the noncommissioned officer level, and were available to men who had made a good record during basic training. OCS records and Leaders' Course records were obtained on 155 graduates of the Fort Ord Leaders' Course and 161 graduates of the Camp Roberts Leaders' Course. Composite ratings obtained at both Leaders' Courses were found to be valid predictors of OCS success. The part-score of greatest predictive value was the peer rating.

Research on Motivation and Attrition Problems of the Army Officer Candidate Schools, interim report by Milton G. Holmen, Robert V. Katter, Ann M. Jones, and Irving F. Richardson, September 1954.

AD-486 301

II

This summary of the research findings on Officer Candidate School (OCS) problems includes implications for OCS policy. Also included in this review are the areas of attitude and information patterns of OCS eligibles; the effect of different methods of motivating men to apply for OCS; branch preferences of officer candidates; the Military Interest Blank as a predictor of motivation to complete OCS training; the officer candidate applicant assessment center; research on the OCS evaluation system; relationships between the attrition rate and composite ratings, situational tests, and leadership scores.

Relationships Between School Preference and Success in OCS, interim report by Milton G. Holmen and Irving F. Richardson, December 1954.

AD-486 302

I

There is a weak overall trend at all officer candidate schools for candidates attending the school of their first or second choice to be more likely to graduate. This trend is somewhat more pronounced at the combat arms OCSs than at the technical service OCSs. Of the candidates questioned at the technical service OCSs, about one out of five had expressed preference for a combat arms OCS on his application form.

Predicting Motivation to Complete OCS With Interest Inventories, Staff Memorandum by Milton G. Holmen and Robert V. Katter, May 1955.

AD-486 299

This study was concerned with whether interest items could predict motivational failure in the Army Officer Candidate Schools and, if so, what kind of items are the best predictors and how the item should be scored to improve predictions. Scales for three OCSs were developed in two separate interest tests: a commercially available interest blank and a test using specially written military items. The scales produced very useful predictions at two of the three schools.

"Predicting Success in Officer Candidate School With an Assessment Program," by Robert V. Katter and Milton G. Holmen, paper read at meeting of APA, 1955.

An Assessment Program for OCS Applicants, Technical Report 26, by Milton G. Holmen, Robert V. Katter, Ann M. Jones, and Irving F. Richardson, February 1956.

AD-51 213

III

This study investigated factors affecting the prediction of OCS success and failure by procedures which might be useful in screening candidates. Assessment procedures were developed which had some success in evaluating the candidates tested, and in addition appeared to have orientation and training effects useful to the candidates. There did not seem to be much relationship between measurable personality characteristics and the OCS criteria.

OFFTRAIN-Division No. 4 (Infantry)¹

Sub-Unit

Studies in Leadership and Leadership Training

- § "Training Leaders With Sound Films and Group Discussion Techniques," by Carl J. Lange, Carl H. Rittenhouse, and Richard C. Atkinson, paper read at meeting of APA, 1955. I

A leadership course for Army officers utilized sound films for the presentation of officer problems, based on descriptions of leadership situations collected from Army officers and NCOs in combat and non-combat areas. Each film terminated at the point where the leader was faced with making a decision and taking action; a small group discussion followed. A manual for instructors included the purpose of the course, the technique used, the function of the instructor, and narrative descriptions of the leadership problems. The course was used for leadership training, with control groups taking conventional classes. Analyses indicated that the experimental training was superior to the conventional training.

- § *Films and Group Discussions as a Means of Training Leaders*, Technical Report 27, by Carl J. Lange, Carl H. Rittenhouse, and Richard C. Atkinson, March 1956. AD-89 278 I

A technique for training junior officers in military leadership, using sound films depicting characteristic leadership problems followed by small group and panel discussions of the films, was developed and evaluated. In comparison with students who received the regular training, students who received this special training showed greater improvement in the quality of their solutions to leadership problems, and were better able to evaluate leadership in others.

- § "Relationships Among Leader Effectiveness Ratings, Intelligence and Job Knowledge," by Vincent Campbell, Carl J. Lange, and Fred J. Shanley, paper read at meeting of WPA, 1957.

Two rating questionnaires were administered as criteria of overall effectiveness of leadership. One superior and an average of seven subordinates rated each of 42 junior officers serving as platoon leaders of infantry platoons. Within the population studied, variation in intelligence was found to be unrelated to leader effectiveness using the criteria concerned. Technical job knowledge was found to be a small source of variation in platoon leader effectiveness.

- § "A Method for Studying Leadership," by Carl J. Lange, Robert V. Katter, Vincent N. Campbell, and Fred J. Shanley, paper read at meeting of APA, 1957.

A method was developed for studying behavior of the formal leader in small groups. The method was designed to provide a set of behavior description variables which were comprehensive and stated in terms of overt behavior. Descriptions of observed leader behavior were obtained in interviews with subordinates. A set of behavior variables was formulated, and trained scorers transformed the interview data into quantitative information on these variables according to an objective set of rules. Final scores derived from this quantitative information yielded distributions showing substantial variation among leaders for most variables.

- § "Experimental Design for Field Studies in Leadership," by Carl J. Lange and Francis H. Palmer, paper read at 3d Conference on Design of Experiments in Army Research, Development and Testing, Washington, October 1957.

Two exploratory field studies using correlational design are discussed with special emphasis on methodological problems commonly faced.

- § *A Study of Leadership in Army Infantry Platoons*, Research Report 1, by Carl J. Lange, Vincent Campbell, Robert V. Katter, and Fred J. Shanley, November 1958. AD-209 142 II

The purpose of this study was to obtain information about the on-the-job leadership behaviors which distinguish between effective and ineffective infantry platoon

¹This Work Unit was initiated at Division No. 3 (Recruit Training). The symbol § indicates an item prepared at Division No. 3.

leaders. Sources of data included (a) interviews with 281 platoon members to provide detailed descriptions of leader behaviors in specific situations, (b) a questionnaire in which platoon members rated platoons and platoon leaders, (c) ratings of platoon leaders by company commanders, (d) tests of intelligence and military information given to platoon leaders. Considerable agreement exists between subordinate and superior ratings. The effective leader emphasizes performance as the basis of reward and punishment, uses punishment instructively and for motivational failures, and communicates clearly about the standards desired, providing precise information about needed improvement when reacting to below-standard performance.

"The Social Desirability Variable in Behavior Description," by T.O. Jacobs and C.J. Lange, paper read at meeting of SEPA, 1960. III

Leadership in Army Infantry Platoons: Study II, Research Report 5, by Carl J. Lange and T.O. Jacobs, July 1960. AD-240 898 III

A Leader Activities Questionnaire (LAQ) was developed to measure leader behavior variables found in an earlier study to be associated with judgments of leader effectiveness. The LAQ was planned for use as a measure of the effectiveness of experimental platoon leader training based on the leader behavior variables identified earlier. Results of the tryout indicated that most of the LAQ scoring categories were satisfactory as to internal consistencies and the extent to which platoon members agreed in describing behavior of their platoon leaders. Validities of parallel variables in the two studies were in substantial agreement. The close agreement between the two sets of results increases the confidence with which the findings of the earlier study can be used as a basis for training platoon leaders.

"Identifying and Measuring Leadership Characteristics of the Officer," by Carl J. Lange, paper read at Symposium on Recent Developments in Measuring Officer Effectiveness, meeting of APA, 1961.

"Leadership in Small Military Units: Some Recent Research Findings," by Carl J. Lange, paper read at NATO Symposium on Defence Psychology, Paris, July-August 1960, in *Defence Psychology*, Frank A. Geldard (ed.), Pergamon Press, New York, 1961.

The effect of a leader's actions on his followers in small military units was the subject of several research studies conducted to explore the nature of the leadership process. The results of the studies emphasized the leader's active role in facilitating and motivating effective performance and minimizing disrupting influences. A framework for leadership training concepts was formulated.

Basic Problems in Small-Unit Leadership, training manual by T.O. Jacobs, February 1962. AD-637 727 IV

A Program of Leadership Instruction for Junior Officers, Technical Report 84, by T.O. Jacobs, June 1963. AD-409 096 IV

A leadership course for junior officers was developed, based on research findings that identified effective and ineffective leader actions and on leadership training methods of demonstrated effectiveness. The course emphasized study of the leader's interactions with his men in the accomplishment of assigned tasks, and the effect of his actions both on the motivation and morale of his men and on the unit's ability to perform assigned tasks. Student reactions to the course immediately after its completion were good. Follow-up data from the final evaluation group indicate that these favorable reactions do not diminish significantly over a period of four months.

"Leadership at Small Unit Level," by T.O. Jacobs, paper read at meeting of Georgia Psychological Association, Jekyll Island, Ga., February 1965.

Research By-Products resulting from this research effort are listed in Part III.

**ORIENT—Motivation, Morale, and Leadership Division
Orientation Procedures for Airborne Trainees**

Sub-Unit

***Effects of Four Orientation Procedures on Airborne Trainees, Research Memorandum 1,
by Raymond Fink and George Gray, October 1953.***

AD-19 191

A study was made to determine the relative effectiveness of different orientation procedures for Airborne trainees. The men were divided into four groups; three were given different types of pretraining orientation ("Standard," "Non-fear," and "Glory") and the fourth was given no orientation. No statistically significant differences were found among the four groups in proportion of men successfully completing the course, reasons for noncompletion, and rate of washout. Occasional statistically significant differences were found among groups in certain attitudinal areas.

**OVERDRIVE—Division No. 1 (System Operations)
Analysis of Training Requirements for Operation of an Amphibious
Ground Effect Machine**

"Human Factors in the Air Cushion Vehicles (ACV)," by John W. Lewis and A. James McKnight, paper read at meeting of Human Factors Society, New York, November 1962.¹

¹Mr. Lewis was on the staff of the Army Human Engineering Laboratories, Aberdeen Proving Ground, Md.; Dr. McKnight was on the staff of Division No. 1 (System Operations).

PATROL—Division No. 4 (Infantry)

Sub-Unit

**Methods for Increasing Accuracy, Extent, and Reliability
of Information Obtained From Reconnaissance Patrols**

Improving the Ability of the Individual Soldier to Employ a Map and Compass in Land Navigation, Staff Memorandum by Henry S. Rosenquist and John E. Taylor, January 1957. I

AD-488 024

Spring 1956 Research on "Reconnaissance Patrolling: A Basic Course in Individual Skills," Staff Memorandum by Joseph F. Follettie, John E. Taylor, and Henry S. Rosenquist, April 1957. I

AD-627 227

Fall 1956 Research on "Reconnaissance Patrolling: A Basic Course in Individual Skills," Staff Memorandum by Joseph F. Follettie, Henry S. Rosenquist, and John E. Taylor, May 1957. I

AD-627 228

Basic Instruction in Land Navigation, Proficiency Test Manual, Research Memorandum, December 1958. I

AD-488 021

This report presents the test which was used to evaluate the adequacy of the twelve-hour training program in land navigation for both day and night conditions appropriate to the basic training level of instruction. The test was administered to approximately 300 basic trainees, all of whom had received the training program.

Possible Combat Application of Experimental Stealth Measuring Device, Research Memorandum by Frank L. Brown, January 1959.

Capabilities and Limitations of the Lensatic Compass, Research Memorandum by Henry S. Rosenquist, October 1959. I

AD-488 023

Instructor's Guide, PATROL I, Land Navigation: Basic Instruction, Research Memorandum (revised), November 1959. I

AD-488 401L

This report represents an experimental program of basic instruction in land navigation under day and night visibility conditions. The program stresses the acquisition of a degree of skill appropriate to the Basic Individual Combat Training level. Included in the Instructor's Guide are descriptions of the instruction, training aids, physical facilities required for training, a subject schedule and detailed lesson plans.

A Performance Requirement for Basic Land Navigation, Research Report 4, by Joseph F. Follettie, March 1960. I

AD-237 952

This report presents the rationale and supporting data that were the basis for establishing a performance requirement and a proficiency standard to be used in evaluating a program of instruction in basic land navigation. The combat reference situation in which navigation ability ultimately will be required was described, and the performance requirement and the means for accomplishing it were assessed. Generation of the requirement was based on characteristics of position defense by a ROCID division.

Development and Evaluation of a Program of Instruction in Basic Land Navigation, Technical Report 70, by Joseph F. Follettie, May 1961. I

AD-256 392

This report describes development and evaluation of a 12-hour Program of Instruction in basic land navigation, for use in Army Basic Combat Training (ATP 21-114). The specification of a performance requirement for basic land navigation by enlisted personnel is summarized in an appendix. The experimental program of instruction, which was built around instruction in dead reckoning and map-terrain association, is outlined. A sample of basic trainees was trained by the POI and tested on a night proficiency test, with about 75% of the sample meeting the performance requirement.

Research By-Products resulting from this research effort are listed in Part III.

PIONEER

Sub-Unit

Development of Methods and Concepts for Training and Motivation Research

This Work Unit was the original vehicle for HumRRO's basic research work, which became programed as separate Basic Research Studies beginning FY 1965. The PIONEER Sub-Units I-X have been presented as correspondingly numbered Basic Research Studies and reporting is listed in the Basic Research section.

PLATTRAIN—Division No. 4 (Infantry)

Experimental Development of Procedures and Methods Designed to Improve the Tactical Proficiency of the Rifle Platoon

"Chalk Talk for Platoon Leaders," by COL Henry E. Kelly [USA Ret.], *Army Combat Forces J.*, vol. 6, no. 3, October 1955.

"'Verbal' Defense," by COL Henry E. Kelly, USA Ret., *Military Rev.*, vol. XXXV, no. 7, October 1955.

PLATTRAIN: *Premises and Training Implications Related to Improving the Tactical Proficiency of Rifle Platoons*, Research Memorandum by John E. Taylor, John B. McKay, Charles E. Hall, and Salvatore N. Cianci, April 1959.

AD-260 995

Tactical doctrine, combat literature, and the literature of previous research were studied to develop premises and training implications to serve as a base upon which subsequent programs of training research relevant to the rifle platoon could be built. A set of premise statements is presented summarizing those factors which have complicated smooth rifle platoon functioning in the past and probably will complicate smooth functioning in the future. Separate sets of statements outlining the implications of these premises for training the individual platoon member, the platoon and squad leaders, and platoons as units, are also presented.

Some Factors Which Have Contributed to Both Successful and Unsuccessful American Infantry Small-Unit Actions, Research Memorandum by John B. McKay, Salvatore Cianci, Charles E. Hall, and John E. Taylor, April 1959.

AD-260 994

A search of American infantry small-unit combat literature of World War II and Korea has yielded information concerning some of those factors in American employment of battlefield techniques that have figured in differentiating successful from unsuccessful small-unit actions. Presented in this paper is an enumeration of these factors—supporting fires, control and communications, preparation for conditions on the battlefield, information dissemination, availability of time for planning, accurate and timely reporting, security and surprise, combat losses of key personnel, choice of weapons and personnel for specific missions, and dispersion and tactical utilization of terrain.

POLICY—Division No. 1 (System Operations)

Sub-Unit

**An Analysis of Committee Problem-Solving Techniques
at the National War College**

Committee Problem-Solving Techniques at the National War College, Technical Report 10,
by Frank Restle, September 1954.

AD-83 857

The problem-solving methods of student committees of the National War College were assessed with a view to determining how the committees should operate, how they do operate, and how their operation might be improved. Information was obtained through observation, questionnaire, and interview techniques. Specific suggestions for improving the usefulness of the committee method were made.

PRESSURE—Division No. 1 (System Operations)

**An Experimental Study of the Relationship Between Anxiety Level
and Performance in a Military (Rifle Firing) Situation**

"Rifle Marksmanship as a Function of Manifest Anxiety and Situational Stress," by Joseph C. Hammock and Albert I. Prince, paper read at meeting of APA, 1954.

A Study of the Effects of Manifest Anxiety and Situational Stress on M-1 Rifle Firing, Staff Memorandum by Joseph C. Hammock and Albert I. Prince, October 1954.

AD-625 919

PROFICIENCY—Division No. 2 (Armor)

Sub-Unit

**Proficiency Testing: The Development of Performance Proficiency Tests
for Basic Trainees**

Development of Proficiency Tests for Basic Combat and Light Infantry Training, Technical Report 19, by Robert A. Baker, Guy Scott, and Eugene F. MacCaslin, July 1955. AD-65 829

After an intensive study of current proficiency testing practices, ATPs, and combat reports, performance tests were developed to measure proficiency attained by trainees in basic and advanced infantry training. The Individual Proficiency Test: Basic Combat and the Individual Proficiency Test: Light Infantry were developed for administration at the end of the Basic Combat Training Program (ATP 21-114) and the Advanced Light Infantry Training Program (ATP 7-600) respectively. Each test consisted of 17 subtests of critical combat skills. Each test was evaluated for its validity, reliability, objectivity, ease of administration, and ease of scoring.

Research By-Products resulting from this research effort are listed in Part III.

PROTECT—Division No. 1 (System Operations)

Sub-Unit

The Performance of Military Personnel Wearing Protective Masks

The Effects of Protective Masking Upon Smoke Generator and Fuel Supply Team Performance: An Analysis of an Experiment Conducted by the U.S. Army Chemical Corps, Research Memorandum by Richard I. Moren and William E. Montague, April 1959. I
AD-628 146

The Effects of Wearing the CBR Protective Mask Upon the Performance of Selected Individual Combat Skills, Technical Report 57, by William E. Montague, Robert D. Baldwin, and Andrew H. McClure, June 1959. I
AD-220 171

The effects of wearing the protective mask on individual combat skills were measured during the first hour and after five consecutive hours of masking. Performance test scores of masked soldiers were compared with their scores when tested under comparable conditions without masks. Military activities tested were: driving vigilance, radio communication, target detection with unaided vision and with binoculars, firing shoulder weapons, cross-country running, and unaided voice communication. During the first hour, performance by masked troops was lower than for unmasked, losses ranging from 1 to 36%. With one exception, five-hour effects of masking also produced lower scores, average losses ranging from 2 to 41%. The greatest decrement appeared in tests of unaided voice communication, indicating a need for additional emphasis on the use of other means of communication in combat.

"The Effects of Wearing the CBR Protective Mask Upon the Performance of Selected Individual Combat Skills," by William E. Montague, paper read at meeting of APA, 1960. I

The effects of wearing the protective mask on individual combat skills were measured. Performance test scores of masked soldiers were compared with their scores when tested under comparable conditions without masks. Military activities tested were: driving vigilance, radio communication, target detection with unaided vision and with binoculars, firing shoulder weapons, cross-country running, and unaided voice communication. Average losses due to masking ranged from 1 to 41%. The greatest decrement appeared in tests of unaided voice communication, indicating a need for additional emphasis on the use of other means of communication in combat.

Human Factors in CBR Operations: The Effects of CBR Protection Upon the Performance of Selected Combat Skills in Hot Weather (U), Technical Report 71, by William E. Montague and Richard I. Moren, May 1961 (CONFIDENTIAL). I
AD-323 672

Troops were tested in hot weather under three conditions of CBR protection: in normal field uniform (no protection), wearing the model F13R9 mask, and wearing the entire permeable protective uniform (including the mask). The tests were: setting up and taking down smoke generators, road marching, running, rifle loading and unloading, rifle disassembly and assembly, rifle bore cleaning, spark plug changing, carbine marksmanship, radio communication, and unaided voice communication. (U)

PSYFREE—Psychological Warfare Division
Communist Indoctrination and Use of Prisoners of War
for Psychological Warfare Operations

Sub-Unit

A Study of the POW Experiences of a Specific National Group [U] (short title), interim report by Milton Kovner, March 1955 (CONFIDENTIAL).

"Were They Really Brainwashed?" by Julius Segal, *Look*, vol. 20, June 1956.

Factors Related to the Collaboration and Resistance Behavior of U.S. Army PW's in Korea, Technical Report 33, by Julius Segal, December 1956 (Unclassified, with CONFIDENTIAL Supplement).

AD-116 845

This study was designed to identify factors which differentiated those U.S. Army PWs who resisted Communist exploitation in Korea from those who participated in the captor's program of exploitation. A sample of 579 PWs was selected for study from the population of 3,323 repatriated Army PWs, and three distinct groups of PWs - Participators, Resisters, and Middle - were contrasted on over 300 items of information drawn from interrogations conducted by the Army. Recommendations for the content of troop orientation programs are made, and the specific resistance skills and attitudes required for resistance are identified.

"Factors Related to the Collaboration and Resistance Behavior of U.S. Army PW's in Korea," by Julius Segal, paper read at meeting of EPA, 1957.

"Correlates of Collaboration and Resistance Behavior Among U.S. Army POWs in Korea," by Julius Segal, *J. Soc. Issues*, vol. 13, no. 3, September 1957.

American prisoners in Korea, under continuing threat of punishment for resistance to their captors, could either submit to the enemy's demands and get preferential treatment, or resist and suffer the consequences. Few understood that the enemy was primarily seeking psychological warfare gains in their efforts to win prisoners to collaboration. A small proportion (15%) of the American POWs in Korea capitulated, and another 5% refused to submit although threatened with personal danger and abuse, deprivations, and imprisonment. Approximately 80% of the men managed to maintain a neutral position.

PSYJOB—Psychological Warfare Division

Sub-Unit

Determination of Training Requirements for Propaganda Personnel

Psychological Warfare Job Requirements and Training: An Evaluation of the Psychological Warfare School Curriculum, Staff Memorandum by Lawrence Schlesinger and Harriet Beckwitt, August 1956.

AD-484 337L

QUIZ—Division No. 3 (Recruit Training)

Sub-Unit

**Psychological Techniques for Facilitating and Countering
Interrogative Processes**

Exploratory Efforts Concerned With a Study of the Interrogation Process: Survey Activities, Conceptualization and Pilot Studies, Research Memorandum by Hilton M. Bialek, Jerald N. Walker, and Joanne J. Hood, May 1962 (For Official Use Only).

I

This paper includes a survey of potential problems in the areas of interrogation and resistance, a working conceptualization of the interrogation process, and the informal results of a number of pilot studies originating from the conceptualization. These activities resulted in a proposal for a formal research effort.(U)

An Experimental Approach to Tactical Interrogation, Research Memorandum by Hilton M. Bialek, Jerald N. Walker, and Joanne J. Hood, February 1963.

AD-487 876L

II

The purpose of this study was to determine whether experimental simulation of a tactical interrogation situation was feasible. The report describes the experimental situation, the derivation and description of scores measuring interrogation input and output, and the basis and limits for generalizing from the specific experimental setting. Effects of variations in interrogator technique and arousal of source resistance on the amount and accuracy of information obtained are reported. Both variables are shown to have significant effects under particular conditions. The salient finding is that almost three-fourths of potentially available information is lost under the best of conditions. Suggestions for implementation and further research conclude the report.

An Evaluation of Three Screening Procedures for Interrogation, Research Memorandum by Jerald N. Walker and Joanne J. Hood, May 1963.

AD-487 876L

II

The purpose of this experiment was to determine the relative effectiveness of screening sources individually, in 4-man groups, and in 12-man groups. It was concluded that screening is most efficient when sources are dealt with in groups of four; however, this conclusion is restricted to cases where the interrogator is dealing with cooperative enlisted sources and has essential elements of information about as specific as in this study. Although substantial variation existed, the accuracy of the interrogators' screening appeared satisfactory.

RADAR—Division No. 5 (Air Defense)¹

Sub-Unit

Training of Radar Operators and Maintenance Personnel

§ *A Bibliography of Human Factors in Radar Operation and Maintenance* [Staff Memorandum], by Abram M. Barch, Donald F. Haggard, Herbert Seiden, Robert Vineberg, and George J. Wischner, September 1953 (Unclassified, with CONFIDENTIAL supplement).

§ *The AAFCS M-33 Mechanic: Analysis of Field Activities and Problems With Implications for Training*, Information Report, March 1954. II
AD-488 896L

§ *The AAFCS M-33 Operator: Analysis of Field Activities and Problems With Implications for Training* [U], Technical Report 20, by Donald F. Haggard and J. Daniel Lyons, August 1955 (CONFIDENTIAL). I
AD-75 684

This study was designed to obtain a complete description of the activities, problems, and training of M33 radar operators in antiaircraft installations. Present training is evaluated in terms of administrative factors, curricula, instructional methods, and training materials, and specific criticisms and suggestions from trainees and instructors are included. (U)

§ "A Performance Test for the AAFCS M-33 Radar Mechanic and Observations on Trouble Shooting Behavior," by Robert Vineberg, paper read at Symposium on Electronics Maintenance, Advisory Panel on Personnel and Training Research, Washington, August 1955.

§ "Studies of Field Activities of Army Electronics Maintenance Personnel," by George J. Wischner, Abram M. Barch, and Joseph C. Hammock, paper read at Symposium on Electronics Maintenance, Advisory Panel on Personnel and Training Research, Washington, August 1955.

§ *Supplement to a Bibliography of Human Factors in Radar Operation and Maintenance*, Staff Memorandum by J. Daniel Lyons, August 1955. AD-488 896L

§ "An Analysis of Problem Solving for Use in Trouble Shooting Research," by Robert Vineberg, paper read at Symposium, meeting of APA, 1955.

§ "A Three-Hour Performance Test to Evaluate Job Effectiveness of Army Radar Mechanics," by James E. Whipple, Robert D. Baldwin, Robert F. Mager, and Robert Vineberg, paper read at meeting of APA, 1955. IV

§ *The AAFCS M-33 Operator: A Manual of Operating Procedures*, Special Report 6, by George H. Brown, Donald F. Haggard, and J. Daniel Lyons, August 1956. V
AD-108 197

A complete list of operationally correct AAFCS M33 radar operating procedures was developed for use within an over-all Work Unit designed to improve and standardize the training required for radar operator personnel. The list can be modified to suit the needs of a specific command area, and subdivisions by activity can be separately bound for use by trainees for each operating position. It is believed that operator trainees will more quickly achieve a satisfactory level of operating skill when their individual instruction at the controls is supplemented by the study of this manual of step-by-step procedures.

¹This Work Unit was initiated at Division No. 1 (System Operations). The symbol § indicates an item prepared at Division No. 1.

RADAR (Cont.)

Sub-Unit

- § The AAFCS M-33 Mechanic Proficiency Test: Part I—Comparison of Mechanics With and Without Field Experience. Part II—Development and Cross-Validation, Technical Report 38, by Robert D. Baldwin, Robert F. Mager, Robert Vineberg, and James E. Whipple, May 1957.**

IV

AD-133 219

As part of long-range research in electronics maintenance and operator training, maintenance proficiency of AAFCS M33 mechanics at time of graduation from the AAA & GM School and after on-the-job experience was assessed. Experienced and inexperienced mechanics were tested with the AAFCS M33 Mechanic Proficiency Test (14 problems in troubleshooting, adjustment, preventive maintenance, energizing and operation of the M33 radar). Results suggest that after the general improvement in skills during the first six months on the job, additional experience has little effect on the skills tested—except for troubleshooting ability, which continues to develop with field experience. Characteristic deficiencies in the performance of new mechanics were identified and steps were recommended to alleviate them.

- "Diagnosis and Treatment of an Army Electronics Training Course," by James E. Whipple, Robert F. Mager, and Lloyd Hitchcock, Jr., paper read at meeting of APA. 1957.**

A five-stage research program has resulted in Army adoption of an improved curriculum for M-33 Anti-Aircraft Fire Control System maintenance mechanics. The sequence of research activities involved: job analysis and definition, construction of a criterion test of maintenance proficiency, critical evaluation of the training program, using data obtained from the two preceding steps, development of two revisions of the training curriculum, and experimental tryout of the revised curricula. Areas of training weakness diagnosed in the third stage are noteworthy for their departure from the usual electronics research orientation toward abstract problem solving (troubleshooting) competence.

- Development and Evaluation of an Experimental Program of Instruction for Fire Control Technicians, Technical Report 46, by Lloyd Hitchcock, Jr., Robert F. Mager, and James E. Whipple, May 1958.**

VI

AD-200 850

As part of a long-range research in electronics maintenance and operator training, an experimental training program for AAFCS M33 technicians was developed and evaluated. Experimental curriculum modifications included a one-week introductory course in fire control system operation, a marked reduction in time spent in basic electronics theory, and a shift in over-all emphasis from electron-flow theory to signal-flow analysis of circuitry. Experimental course graduates scored much higher on a performance proficiency test than did appropriate comparison groups. Curriculum modifications were recommended to the U.S. Army Air Defense School.

- Course Achievement of Students With Unsatisfactory Academic Averages in Basic Electronics, Staff Memorandum by Harry E. Anderson, Jr., and James E. Whipple, September 1958.**

IX

AD-633 185

This study was conducted to investigate academic achievement of students in a fire control maintenance course. Four experimental classes, involving a total of 92 trainees, for whom complete data were available, were allowed to complete the course regardless of grades and without undergoing boarding action. This experimental procedure permitted analysis of grades throughout the course for each trainee. An electronics aptitude test was given to each trainee prior to the course. The study showed that a substantial number of students, normally removed from their class as a result of deficient grades in Basic Electronics, possessed the ability to make satisfactory grades in later phases of instruction on the equipment.

Research By-Products resulting from this research effort are listed in Part III.

RADEV—Division No. 2 (Armor)

Sub-Unit

**A Comparison of the Training Effectiveness of the Stereo
Range Finder Device OROPT-T1 and the Tank-Mounted Range Finder**

The Training Effectiveness of a Stereoscopic Range-Finder Trainer, Technical Report 12,
by Norman Willard, Jr., Charles A. Bancroft, and John G. Reddam, October 1954. AD-57 326

This study assesses a device (OROPT-T1) designed to (a) identify trainees who will not benefit from range finder training, (b) facilitate remedial instruction, and (c) replace the tank-mounted range finder in training. The device will distinguish, with 300 or fewer rangings, between normally apt students and those requiring special training; it is not useful for remedial training; it can replace the tank-mounted range finder in some phases of training for the first 300 practice rangings.

RADOP—Division No. 1 (System Operations)

Sub-Unit

Improvement of Student Performance in Radio Operation Courses

Development of a Measure of Skill at Receiving International Morse Code, Staff Memorandum by S. James Goffard, May 1957; paper read at meeting of APA, 1958. AD-157 986

I

On the basis of earlier work, an unconventional but more general measure of skill at receiving International Morse Code has been developed. This measure, the speed score, estimates the speed at which a man can get just 90% of the characters correct. From empirically derived tables, a speed score is found for each test. The average of these is used as a measure of skill. This measure has been found useful in making experimental evaluations of programs of code practice material.

Effectiveness of Variations in Code Practice, Staff Memorandum by S. James Goffard, May 1958. AD-226 981

II

The practice required to increase the speed of receiving International Morse Code (IMC) is monotonous and very quickly becomes boring. Students soon find it extremely difficult to attend to the practice material, much less to concentrate on it, and their motivation to learn code quickly vanishes. In an attempt to relieve this monotony, new practice materials designed to be more interesting to the students were devised for one segment of a course in IMC. The new practice materials were evaluated experimentally against the old. It was found that: Students practicing with the new material found it more interesting and less boring than the old, progressed at least as fast as those practicing with the old, and seemed to direct their energies more toward passing the tests than toward learning code.

Experimental Studies of Skill in Copying International Morse Code, Technical Report 68, by S. James Goffard, December 1960. AD-249 915

This research was directed at improving the motivation of students practicing International Morse Code. A new method of measuring skill at copying code was used in evaluating two experimental modifications of the program of practice material. Both modifications proved more interesting than the original program, but neither produced a significant increase in the rate of learning. A new program of progressive code practice is presented for use in code courses. It is believed that this practice system would be most advantageous in a course where the amount of time each student was required to spend in code instruction depended directly on the rate at which he learned code.

Methods for Improving the Effectiveness of Small Groups Under Stress

Comparison of Random Pairs and Real Pairs on a Simple Auditory Counting Task, Research Memorandum (revised) by Seward Smith, Donald B. Murphy, George L. Hampton, Ray Bernardo, and Harry Burdick, March 1963.

AD-638 306

Performances of 44 subjects working together in face to face pairs (Real Pairs group) and 60 subjects working in pairs but separated from each other (Random Pairs group) were compared on a task which required the counting of long series of tones. These tone series contained from 52 to 196 tone segments presented at a constant rate of eight per second. Real Pair teams were asked to reach agreement on their estimates while the subjects of each Random Pair separately turned in their estimates which were averaged for each problem. All subjects gave individual ratings of their confidence in each problem judgment. The Real Pairs reported lower estimates of the number of tones in the problems they judged than did the Random Pairs. The confidence scores for the two groups were not appreciably different.

"Cohesiveness and Motivation," by Harry A. Burdick, Donald B. Murphy, Seward Smith, and Joan S. Nettler, paper read at meeting of APA, 1963.

Task success and desired personality traits were varied making four subgroups. Solitary subjects were led to believe they were working with a partner on a tone matching problem. After each trial, success feedback was reported. The experimenter arbitrarily failed half of the persons. Subsequently a measure of cohesiveness, involvement, n Achievement, and n Affiliation were obtained. Success groups were higher in cohesiveness. Persons high in n Affiliation liked the partner better. Persons more attracted to the group tried harder, but only in success groups. If in failure groups, persons less attracted to the group tried harder.

"Relation of Intelligence and Authoritarianism to Behavioral Contagion and Conformity," by Seward Smith, Donald B. Murphy, and Ladd S. Wheeler, *Psychol. Rep.*, vol. 14, no. 1, February 1964.

This is a report on a series of experiments designed to study behavioral contagion in two-man groups. Results indicated that the California F scale *per se* did have some value in predicting conformity behavior, but that (within the limited range tested) intelligence *per se* did not.

"Behavioral Contagion," by Ladd Wheeler, Seward Smith, and Donald B. Murphy, *Psychol. Rep.*, vol. 15, no. 1, August 1964.

Four separate experiments on the contagion of game-playing behavior were conducted. Experiment I indicated that contagion occurred whether the game engaged in by the confederate was of high or low valence to the subject, that mere activity on the part of the experimental confederate did not lead to game playing, and that contagion tended toward specificity. Experiment II indicated specificity of contagion was not necessary, that contagion was not entirely due to a desire to compete in game playing. Experiment III failed to produce contagion of a low-valence game with no restraints against game playing. Experiment IV failed to produce contagion of a high-valence game with no restraints against game playing. Throughout the four experiments there was no relationship between contagion and Asch-type conformity. The observed contagion was mediated by reduction of restraints. The data were not adequate to specify the manner in which restraints were reduced, although several alternatives were discussed and evaluated.

¹This Work Unit was terminated at Division No. 4 (Infantry).

RANGEFINDER—Division No. 2 (Armor)

Sub-Unit

A Study of Training and Selection of Stereoscopic Range Finder Operators for Armor

"The Relationship Between Lateral Phoria and Some Tests of Real and Apparent Depth Perception," by Norman Willard, Jr., Howard C. Olson, and Robert D. Arnold, paper read at meeting of APA, 1953.

"The Distribution of Instrumental Diopter Settings in the Army Population and Their Relation to Pertinent Vision Variables," by Howard C. Olson and Norman Willard, Jr., paper read at the 34th meeting of the AF-NRC Vision Committee, April 1954.

A Simplified Method for Rating the Performance of Stereoscopic Range Finder Operators, Technical Report 34, by Howard C. Olson and Norman Willard, Jr., December 1956. AD-117 726

I

Data were gathered during training of 179 men as operators of the stereoscopic range finders included in the fire control equipment of medium and heavy tanks. Analysis showed that the standard method of evaluating ranging performance in terms of Units of Error was too difficult to compute in the field and did not always give a true picture of operator error. A scoring graph involving only simple computation was developed as a simplified and accurate method of evaluating operator performance on Range Finder M12 and T46.

A Study of Training of Stereoscopic Range Finder Operators for Armor (U), Technical Report 36, by Norman Willard, Jr., Howard C. Olson, and Robert D. Arnold, February 1957 (CONFIDENTIAL).

II

AD-124 807

Using Armor trainees without previous range finder experience, the study sought to determine the amount of training needed to make men proficient operators of the stereoscopic range finder, the proportion of trainees who fail, and various combinations of vision and other tests which might serve to screen these men. (U)

READ—Motivation, Morale, and Leadership Division

Studies of Morale and Motivation Factors Influencing Effectiveness of Individual Soldiers: Evaluation of the Basic Education Program

"An Evaluation of a Basic Education Program in the Army," by S. James Goffard, paper read at meeting of APA, 1955.

An Experimental Evaluation of a Basic Education Program in the Army, Technical Report 28, by S. James Goffard, April 1956.

AD-91 212

The effects of a brief period of special prebasic training on the potential military usefulness of marginally literate men were evaluated in this study. Three types of special training were considered: (a) instruction in academic skills—reading, writing, arithmetic; (b) instruction in military skills; (c) instruction in both academic and military skills. In comparison with marginally literate men who had received no special training, specially trained men showed negligible improvement in performance and written proficiency and no appreciable changes in attitudes.

RECON—Division No. 2 (Armor)

Sub-Unit

Training Methods and Techniques for Improving Combat Readiness of the Armored Cavalry Platoon

A Survey of Problems in the Tactical Training of Armored Cavalry Platoons, Research Memorandum by John G. Cook, January 1963 (For Official Use Only). **I**
AD-480 776

Determination of Combat Job Requirements for Armored Cavalry Platoon Personnel, Technical Report 92, by William L. Warnick and Robert A. Baker, December 1964. **I**
AD-455 302

The objectives of this research were to formulate the job requirements of personnel assigned to armored cavalry platoons and find out the importance in combat of each job in order to know which skills should be emphasized during training. Field personnel rated prepared lists of platoon personnel job requirements for their importance in combat. Final lists included only the duties and skills the field personnel rated essential for combat or for basic performance of the job. The lists are felt to be useful for giving students a preview of their jobs, evaluating platoon efficiency, diagnosing and correcting deficiencies, and developing and standardizing proficiency tests for armor schools, training establishments, and armored cavalry units.

Research By-Products resulting from this research effort are listed in Part III.

REFLECT—Division No. 6 (Aviation)

Flight Trainer Requirements in Army Aviation Pilot Training

A Preliminary Training Study of the H-34 Cockpit Procedures Trainer, Research Memorandum by Maurice Siskel, Jr., and Wayne D. Smith, October 1960.

REPAIR—Division No. 1 (System Operations)
Training of Electronics Maintenance Personnel

Sub-Unit

Summary Records of Repairs Reported by Field Radio Repairmen, I - Transmitter-Receiver RT-66, 67, 68, Components of the Standardized Series of FM Sets, Staff Memorandum, July 1956.

I

This memorandum contains information from records of repair activities performed by field radio repairmen on the RT-66, 67, or 68 transmitter-receiver. The information was reproduced from 166 Repair Activity Forms completed by 82 radio repairmen. The forms were designed to obtain specific information about characteristics of equipment referrals and repairman procedures in troubleshooting and repair. They were distributed to working repairmen with instructions to fill them out while repairing equipment items. The purpose of this staff memorandum is to provide "case histories" of maintenance jobs to serve where comprehensive information about individual maintenance jobs is required.

Summary Records of Repairs Reported by Field Radio Repairmen, II - Components of the Standardized Series of FM Sets Except the RT-66, 67, 68 Transmitter-Receiver, Staff Memorandum, July 1956.

I

This memorandum contains information from records of repair activities performed by field radio repairmen on components of the standardized series of FM sets except the RT-66, 67, or 68 transmitter receiver. The information was reproduced from 121 Repair Activity Forms completed by 84 radio repairmen. The forms were designed to obtain specific information about characteristics of equipment referrals and repairman procedures in troubleshooting and repair. They were distributed to working repairmen with instructions to fill them out while repairing equipment items. The purpose of this staff memorandum is to provide "case histories" of maintenance jobs to serve where comprehensive information about individual maintenance jobs is required.

Summary Records of Repairs Reported by Field Radio Repairmen, III - FM Transmitters and Receivers Including Manpacked Sets and Associated Components Except Those in the Standardized Series of FM Sets, Staff Memorandum, July 1956.

I

This memorandum contains information from records of repair activities performed by field radio repairmen on FM transmitters and receivers including man-packed sets except those in the standardized series of FM sets. The information was reproduced from 174 Repair Activity Forms completed by 109 radio repairmen. The forms were designed to obtain specific information about characteristics of equipment referrals and repairman procedures in troubleshooting and repair. They were distributed to working repairmen with instructions to fill them out while repairing equipment items. The purpose of this staff memorandum is to provide "case histories" of maintenance jobs to serve where comprehensive information about individual maintenance jobs is required.

Summary Records of Repairs Reported by Field Radio Repairmen, IV - AM Transmitters and Receivers and Associated Components, Staff Memorandum, July 1956.

I

This memorandum contains information from records of repair activities performed by field radio repairmen on AM transmitters and receivers and associated components. The information was reproduced from 179 Repair Activity Forms completed by 104 radio repairmen. The forms were designed to obtain specific information about characteristics of equipment referrals and repairman procedures in troubleshooting and repair. They were distributed to working repairmen with instructions to fill them out while repairing equipment items. The purpose of this staff memorandum is to provide "case histories" of maintenance jobs to serve where comprehensive information about individual maintenance jobs is required.

Summary Records of Repairs Reported by Field Radio Repairmen, V - Equipment Items Other Than AM or FM Sets and Associated Components, Staff Memorandum, July 1956. I

This memorandum contains information from records of repair activities performed by field radio repairmen on equipment items *other than* AM or FM sets and associated components. The information was reproduced from 81 Repair Activity Forms completed by 56 radio repairmen. The forms were designed to obtain specific information about characteristics of equipment referrals and repairman procedures in troubleshooting and repair. They were distributed to working repairmen with instructions to fill them out while repairing equipment items. The purpose of this staff memorandum is to provide "case histories" of maintenance jobs to serve where comprehensive information about individual maintenance jobs is required.

Activities of Field Radio Repair Personnel With Implications for Training, Technical Report 48, by Harry A. Shoemaker, George H. Brown, and Joan M. Whittemore, May 1958. I

AD-200 941

Data were obtained on the activities of 1,085 field radio repairmen (MOS 296) in field units in the continental United States and the U.S. Army in Europe. Questionnaires, checklists, and interviews were used to (a) identify skills and knowledges critical to the repairman's job, (b) obtain evaluations from repair and supervisory personnel on training in relation to the job, and (c) determine field requirements to be used in developing a field-oriented proficiency test. Recommendations are given for changes in emphasis and modification in the Field Radio Repair course.

Development and Evaluation of an Improved Field Radio Repair Course, Technical Report 58, by George H. Brown, Wesley C. Zaynor, Alvin J. Bernstein, and Harry A. Shoemaker, September 1959. II-III

AD-227 173

Information obtained in a field study was the basis for revising a course of instruction for Field Radio Repairmen, MOS 296.1. The new course emphasizes recognizing and correcting the most common troubles in the most frequently repaired items of equipment. In addition to providing the repairman with a systematic troubleshooting procedure, the new course incorporated "functional context" training features (e.g., theoretical material presented in a maintenance-oriented context). To evaluate the new course two groups of 100 students each were given the new course and the standard course respectively and were then administered a comprehensive battery of job-related proficiency tests. Graduates of the experimental course were superior on four of the tests (Trouble Shooting, Test Equipment, Repair Skills, and Achievement); neither group was superior on the remaining three tests.

"Development and Evaluation of an Improved Radio Repair Course," by George H. Brown, paper read at meeting of APA, 1959. III

A new training course was developed for Army radio repairmen. The new course was characterized by: (a) the teaching of only those electronics fundamentals which could be explicitly related to the maintenance job, (b) more intensive instruction on fewer radio sets, (c) the use of a whole-to-part sequence instead of the traditional part-to-whole sequence in the instruction on specific sets. A group of 86 men trained in the new course was reliably superior to a matched group of 86 conventionally trained men on proficiency tests of troubleshooting skill, test equipment skill, and on a paper and pencil test of maintenance information.

"The Implementation of Functional Context Training in a Radio Repairman Course," by George H. Brown, paper read at meeting of APA, 1959.

"The Functional Context Method of Instruction," by Harry A. Shoemaker, in *IRE Transactions on Education*, vol. E-3, no. 2, June 1960.

The paper describes the functional context method of instruction for radio repair training. Although limited here to electronics, it is applicable in other types of training. The basic premise of the method is twofold: The context of the material to be learned must be meaningful to the learner and must at the same time be directly relevant to the goals of the training program. A "whole-to-part" training sequence is used rather than the conventional "part-to-whole" method. Within this framework, basic electronics is taught in the broader context of overall equipment functions and maintenance operations.

A Follow-Up Study of Experimentally and Conventionally Trained Field Radio Repairmen, Technical Report 65, by George H. Brown and Robert Vineberg, September 1960. AD-245 468

IV

Approximately 70 graduates each of an experimental and a conventional Field Radio Repair course were recontacted after about nine months' field experience to determine their relative proficiency at that time. The experimental course had emphasized recognition and correction of the most common troubles in the most frequently repaired items of equipment and provided the repairman with a systematic troubleshooting procedure; it also incorporated "Functional Context Training" which featured, for example, presentation of theoretical material in a maintenance-oriented context. The experimental course had produced graduates who were markedly superior to the standard course graduates at the time of graduation. At the time of retesting, the two groups of graduates were substantially equivalent in their repair proficiency. It is concluded that although the instruction received by the experimental graduates was less oriented toward theory than was the standard instruction, this did not place the experimental subjects at any disadvantage as compared with the standard graduates.

"A Follow-Up Study of Experimentally Trained and Conventionally Trained Field Radio Repairmen," by Robert Vineberg and George H. Brown, paper read at meeting of APA, 1960.

IV

An experimental course strongly oriented towards the performance of the job in the field and embodying the application of an instructional method termed Functional Context Training was developed for Army radio repairmen. The end-of-course proficiency test battery was readministered to graduates of the experimental and standard courses after they had been in the field an average of nine months. The superiority of the experimental group which had existed at the time of graduation had largely disappeared. Initial high proficiency of the experimental group was not sustained under conditions of minimal exposure to relevant job activities.

RIFLEMAN—Division No. 3 (Recruit Training)¹

Sub-Unit

Improvement of the Combat Proficiency of the Light Weapons Infantryman

- § *The Combat Subjects and Corresponding Proficiency Levels Essential to the 1962 Training Program for the Light Weapons Infantryman (MOS 111.0)*, Research Memorandum by N.I. Fooks, John B. McKay, and John E. Taylor, December 1958. I
AD-478 394L
- § *RIFLEMAN II: An Advancing Small Arms Target*, Research Memorandum by Howard C. Sarvis, March 1959. II
AD-478 298L
- § "Is This Enough?" by COL Henry E. Kelly, USA Ret., *Infantry*, vol. 50, no. 4, June-July 1960.
- § *Critical Combat Skills, Knowledges, and Performances Required of the 1962 Light Weapons Infantryman (MOS 111.0)*, Research Memorandum, January 1961. I
AD-634 513
- § "The M14 Automatic?" by COL Henry E. Kelly, USA Ret., *Infantry*, vol. 52, no. 1, January-February 1962.
- § "Integrative Behavior Versus Individual Skill Measurement as Predictors of Navigational Performance," by T.R. Powers, paper read at meeting of APA, 1962. V
 Ability to navigate over unfamiliar terrain was assessed by a test which measured component skills separately and by negotiation of routes which offered three levels of navigational difficulty. Eight variables were used to define and control route difficulty. Results, based on the performance of 60 light weapons infantrymen, support the validity of the difficulty-defining variables and indicate that proficiency demonstrated on tests which measure skills separately does not necessarily predict proficiency on tasks which require an integration of skills. Scores on the Pattern Analysis test of the Army Classification Battery did not predict ability to negotiate routes.
- § "Infantry Combat Training," by COL Henry E. Kelly, USA Ret., *Infantry*, vol. 52, no. 6, November-December 1962.
- § *Performance Evaluation of Light Weapons Infantrymen (MOS 111.0), Graduates of the Advanced Individual Training Course (ATP 7-17)*, Technical Report 81, by T.F. Nichols, J.S. Ward, N.I. Fooks, F.L. Brown, and H.S. Rosenquist, December 1962. III
AD-294 179
 To evaluate combat readiness and to reduce factors contributing to unsatisfactory performance, an evaluation exercise, which simulated the first 21 hours of combat experienced by replacements assigned to a rifle squad, was administered to 51 men upon completion of 16 weeks of basic and advanced military service. The men were evaluated individually in a variety of situations which required response to commands, decision making, and the choice and use of weapons under combat-like conditions. Acceptable levels of performance were defined by military personnel familiar with each situation and with the conditions that prevailed during the evaluation. The results provide a detailed empirical basis for specific recommendations concerning instruction and tactical training designed to result in greater combat readiness at the end of 16 weeks of individual training.
- § "The Quick or Dead," by COL Henry E. Kelly, USA Ret., and LTC Frank L. Brown, AUS Ret., *Infantry*, vol. 53, no. 2, March-April 1963.
- § *Instructor's Guide—Advanced Land Navigation: A Prototype Course*, Research Memorandum, July 1963. V
AD-601 242

¹This Work Unit was initiated at Division No. 4 (Infantry). The symbol § indicates an item prepared at Division No. 4.

RIFLEMAN (Cont.)

Sub-Unit

† "Rifleman or LWI?" by COL Henry E. Kelly, USA Ret., *Infantry*, vol. 53, no. 6, November-December 1963.

† *A Series of Experimental Investigations of the Land Navigation Process*, Research Memorandum by Theodore R. Powers, January 1964. AD-601 243

V

† *Advanced Land Navigation: Development and Evaluation of a Prototype Program of Instruction*, Technical Report 89, by Theodore R. Powers, April 1964. AD-600 749

V

To enable infantrymen to acquire proficiency in advanced land navigation (ALN) techniques, an ALN performance requirement at the level of infantry advanced individual training (AIT) was developed in this study. Graduates of infantry AIT were tested on navigational routes of the level of difficulty prescribed by the performance requirement. This diagnostic assessment provided guidance for development of a 10-hour prototype program of instruction in ALN. The program was administered to 100 enlisted men whose performance was then evaluated on the prescribed navigational routes. In the experimental group, 50% of the men met the prescribed daytime performance requirement, as opposed to 5% of those without the experimental training; 76% met the performance requirement for nighttime navigation. The 10-hour program of instruction in ALN can be used to train enlisted men to navigate accurately over difficult, unfamiliar terrain under all conditions of visibility.

Development of Improved Rifle Squad Tactical and Patrolling Programs for the Light Weapons Infantryman, Technical Report 65-16, by Joseph S. Ward and N.I. Fooks, December 1965. AD-628 667

IV

This report, on the final Sub-Unit of Work Unit RIFLEMAN, presents and evaluates the improved Rifle Squad Tactical and Patrolling training programs developed to increase the combat proficiency of the Light Weapons Infantryman in Advanced Individual Training (MOS 111.0). The specific objective was to enable the trainee (a) to integrate previously learned skills and knowledges into effective combat behaviors, (b) to coordinate their use with those of fellow squad members, and (c) to execute tactical actions on orders of squad leaders. The method of research included (a) observation of current training and interviews with experienced instructors at Army training centers in order to identify LWI performance deficiencies, (b) derivation of training content from official Army literature and RIFLEMAN I LWI job descriptions, and (c) sequencing of training content into learning units consisting of exercises to form a complete combat action, progressing from emphasis on individual skills to integration of those skills in the squad. The resulting experimental program was administered to two companies of AIT trainees at Fort Ord, California, and was rated as more, or much more, effective than existing programs.

Research By-Products resulting from this research effort are listed in Part III.

RIM—Psychological Warfare Division

Sub-Unit

Research on Methods of Interviewing Foreign Informants

Research on Methods of Interviewing Foreign Informants, Technical Report 30, by Robert H. Beezer, August 1956.

AD-104 751

The purpose of this study was to develop and improve methods for use in interviewing prisoners of war and refugees to obtain information of the sort useful in psychological warfare operations. Interviews were conducted with recent male refugees from the East Zone of Germany to assess the effect of four interrogation factors on the amount of information gained. The variables chosen were the educational level of the source, the interrogator, the manner of interrogation (formal or permissive), and the pattern of questioning. It was found that (a) more highly educated sources gave more information than did those with less education; (b) individual interrogators differed in their performance with sources of different educational levels; (c) the manner of interrogation had no significant effect (sources may have perceived the methods, as applied in this study, in substantially the same way); (d) variations in the pattern of questioning did not produce significant differences, but provocative statements yielded more information than related open-end questions.

RINGER—Division No. 5 (Air Defense)

Fidelity Requirements for Training Devices

A Test of a Method of Converting Proficiency Scores to Learning Time Scores, Research Memorandum by John A. Cox, Lynn M. Boren, and Robert O. Wood, Jr., June 1964.

I

AD-601 943

This report describes a method of converting proficiency scores to learning time scores for use in evaluating alternate types of training devices using differences in learning times as the basis for comparison. It also recounts an empirical application of the conversion technique, and demonstrates the failure of the process to show valid prediction of learning time because of differences in the training methods used.

Functional and Appearance Fidelity of Training Devices for Fixed-Procedures Tasks, Technical Report 65-4, by John A. Cox, Robert O. Wood, Jr., Lynn M. Boren, and H. Walter Thorne, June 1965.

AD-617 767

Twelve training devices of reduced fidelity were prepared. Several five-man groups were trained using each device, and then each man was given a proficiency test. Intelligence of trainees, teaching method, and instructor effects were statistically controlled. No significant differences in proficiency or length of training time were found to be associated with the training device used, regardless of degree of functional or appearance fidelity. As a field test under more realistic Army conditions, with military instructors and soldiers chosen at random, a low fidelity device was used to train one group while another group was instructed with high fidelity equipment. A comparison of proficiency levels and training times showed only chance differences between these two groups.

Research By-Products resulting from this research effort are listed in Part III.

**Development of Methods and Techniques for Improving the Output
of ROTC**

**"The Development of a Basis for a Common Core Curriculum," by Theodore R. Powers,
paper read at meeting of APA, 1965.**

It was determined by a survey of General Military Science (GMS) course graduates that these junior officers are assigned many different types of duties, all showing a relatively low frequency of occurrence. The extensive range of assignments precluded the possibility of using any type of classical job analysis to identify knowledges and skills for a particular job. In partial fulfillment of the ultimate goal of determining training objectives for the GMS curriculum of the Army ROTC program, a method was developed to identify common knowledge and skill areas of various jobs that could be included under seven essential training dimensions. These common knowledge and skill areas were assigned a numerical rating based on frequency of appearance in job analysis literature and also frequency of assignment for ROTC graduates. Those areas having a high rating, and determined to be appropriate for ROTC instruction, will be expanded and clarified as a means of developing training objectives for the ROTC program. This detailed set of duty-oriented training objectives could then be used as a basis for curriculum development.

ROTOR—Division No. 6 (Aviation)

(Ongoing)

Sub-Unit

Design of Rotary Wing Training Devices

"A Review of the Analysis of Visual Discriminations in Helicopter Control," by J.R. Thielges and W.G. Matheny, paper read at meeting of SWPA, 1966 (Subcontractor: Life Sciences, Inc.); also issued as HumRRO Professional Paper 4-66, June 1966. AD-636 579

SAMOFF—Division No. 5 (Air Defense)

Sub-Unit

**Systematic Analysis of Training Requirements and
Procedures for Surface-to-Air Missile Battery Officers**

"Job Requirements of NIKE AJAX Battery Officers," by William F. Brown, Charles L. Darby, and Charles D. Smith, paper read at meeting of SWPA, 1958.

Survey of Opinions of Graduates of the Surface-to-Air Missile Officer Basic Course, Staff Memorandum by Charles L. Darby, John L. Morse, and William F. Brown, August 1958.

AD-487 824

The Effect of Intercession and Altruistic Appeals Upon Questionnaire Return Rates, Staff Memorandum by Charles L. Darby, Ronald A. Gardner, and William F. Brown, January 1959.

AD-487 768L

The Development of Job Descriptions for NIKE AJAX Battery Officers, Technical Report 54, by Charles L. Darby, William F. Brown, Charles D. Smith, and Walter J. Fightmaster, April 1959.

AD-216 118

This study is the first stage of a research project designed to determine the level of skill and knowledge required of officers assigned to Nike-Ajax batteries, so that courses of instruction can be scientifically devised to train officers for maximum effectiveness. Job descriptions were developed for the positions of Battery Commander, Battery Executive Officer, Integrated Fire Control Platoon Leader, and Launcher Platoon Leader. Information was obtained from experienced battery officers, based on the job descriptions, through checklist responses indicating the training needs associated with selected activities. The activities judged most important for all four officer positions were: serving as battery control officer, insuring equipment readiness, and training and evaluating operators.

"The Advent of the Kylcystics," by C.D. Smith, *J. Amer. Soc. Train. Directors*, May 1959.

Weighted Scores, Ranks, and C-Scale Scores for Evaluated Activities of Job Descriptions of NIKE AJAX Battery Officers, Research Memorandum by Charles L. Darby, William F. Brown, and John L. Morse, June 1959.

AD-488 600L

"Proficiency Testing: A Tool for Training Management," by Robert G. Smith, Jr., *Armed Forces Mgmt*, vol. 5, no. 12, September 1959.

"Research on Air Defense Missile Officers," by J.C. Rupe, paper read at Symposium, meeting of SWPA, 1960.

The Revision of NIKE Platoon Leader Job Descriptions: AJAX to HERCULES, Technical Report 62, by Edgar M. Haverland and Walter J. Fightmaster, May 1960.

AD-237 679

This report describes the sources of information and procedures used to revise the job descriptions of the Nike-Ajax integrated fire control platoon leader and launching platoon leader positions to make them applicable to Nike-Hercules platoon leader jobs. It outlines the methods found generally useful for revising and developing job descriptions to keep them up to date, and recommends their use by training agencies. The Hercules fire control and launching platoon leader job descriptions developed in this study are included in the appendix to the report.

Measurement of the Job Proficiency of Nike Ajax Platoon Leaders, Technical Report 66, by John L. Morse, William F. Brown, Robert G. Smith, Jr., and Walter J. Fightmaster, October 1960 (For Official Use Only).

AD-246 769

The SAMOFF Proficiency Test was developed to provide standardized testing materials and procedures to assess the proficiency of Nike-Ajax platoon leaders. The test, which consists of eight stations with both performance and written items, was administered experimentally to students about to graduate from the

Surface-to-Air Missile Officer Basic Course and to unit-experienced Nike-Ajax platoon leaders. The test was judged to be suitable for administration by Army personnel to identify areas in job performance that require more training. (U)

"Officer Training Research and Its Implications for Executive Training," by Edgar M. Haverland, paper read at Symposium on the Implications of Military Training Research for Industry, meeting of APA, 1961.

"The Subject-Matter Expert and the Programmer," by Edgar M. Haverland, paper read at meeting of Texas Psychological Association, December 1961.

"How Much Technical Knowledge Does a Military Officer Need?" by Edgar M. Haverland, paper read at meeting of SWPA, 1962. IV

"Description of Supervisory Jobs," by Harry L. Ammerman, paper read at meeting of MPA, 1963. III

"Job Objectives and Motivation," by Edgar M. Haverland, paper read at meeting of SWPA, 1963. IV

Manual of Procedures for Deriving Training Objectives for Junior Officers, prototype manual (revised) by Harry L. Ammerman, November 1964. III
AD-634 510

A Model of Junior Officer Jobs for Use in Developing Task Inventories, Technical Report 65-10, by Harry L. Ammerman, November 1965. III
AD-624 048

A job description procedure was developed for use by Army service schools in identifying all of the tasks performed by junior officers in a job assignment. This procedure was based on a model of officer job behavior, illustrating the nature and sequence of tasks performed to attain specific goals within each area of responsibility. The behavior model was itself developed from considerations of existing job descriptions, the nature of job information typically provided by interviews with officers, and an information-processing view of purposive behavior. Application of the description technique to one officer job yielded 816 tasks covering troop leadership and unit management, as well as tactical and technical functions. General statements of work were effectively broken into task-level statements of job activities. The technique should provide a practical means for describing most supervisory and command jobs characterized by a high proportion of variable, nonroutine, and covert activities.

Performance Aids for Junior Officers, Technical Report 65-11, by Harry L. Ammerman, December 1965. III
AD-629 304

This study summarizes the comments and suggestions of 57 air defense battery officers concerning the types of managerial aids that would be useful for junior officer performance and learning. Based on discussions, a suggested format for a handbook was developed covering what the inexperienced unit officer needs most to know about operational and system checks of electronic equipment. Suggestions about the nature and content of desired aids should be applicable in many other junior officer managerial job situations.

Development of Procedures for Deriving Training Objectives for Junior Officer Jobs, Technical Report 66-3, by Harry L. Ammerman, May 1966. III
AD-633 167

Research was undertaken to develop a systematic method that could be used by service school personnel to prepare job-oriented training objectives for junior officers, primarily in the form of behavioral statements of student performance expected after training. The procedures developed are divided into four phases: A-Listing of all tasks for a job; B-Selecting tasks for some formal training;

C-Identifying the training emphasis needed in the selected tasks; D-Specifying the knowledges and skills necessary for the selected training aspects. The procedures included administration of experimental questionnaires, both by personal interview and by mail, reviews of pertinent directives and publications, and visits to field units. As the procedures were developed, they were tried out on a sample officer job (Nike-Hercules Fire Control Platoon Leader). In the trial application, a task inventory of 452 items provided the basis for choosing, by use of definite selection rules, 101 job activities (22%) for some formal schooling; of 160 training objectives stated for these activities, 46 were performance-type objectives for which detailed activity descriptions were required. It is believed that use of these procedures by service school personnel to prepare junior officer training objectives is feasible, and that these procedures provide a method for deriving behavioral statements of relevant and essential objectives.

Development of Technical Training Materials for Nike Hercules Junior Officers, Technical Report 66-6, by Edgar M. Haverland, June 1966.

AD-634 301

IV

The checks and procedures necessary to determine whether the major functions of the Nike-Hercules fire control system could be satisfactorily accomplished were chosen, and programed instructional materials were written to teach junior officers the relevant technical information. Evaluation of these materials indicated (a) that they taught a substantial amount of technical information additional to that taught in the Officer Basic Course (44-A-C20) at the U.S. Army Air Defense School, and (b) that more technical information was learned from the SAMOFF IV programed instruction than was learned from directed study of existing Army reference material.

Research By-Products resulting from this research effort are listed in Part III.

SCALO—Motivation, Morale, and Leadership Division

Sub-Unit

**A Further Study of Linear Segments Technique of Scalogram Analysis
Including the Problem of Reliability**

"Linear Segments: A Technique for Scalogram Analysis," by Eric Marder, *Public Opinion Quart.*, vol. 16, Fall 1952 (Subcontractor: International Public Opinion Research, Inc.).

SCOPE—Division No. 1 (System Operations)

**Survey of the Educational and Training Programs of the AA and GM Branch,
the Artillery School, Ft. Bliss, Texas**

***Survey of the Educational Program of The Artillery School, Antiaircraft and Guided Missiles
Branch, Fort Bliss, Texas, Special Report 1, December 1952.***

AD-2 314

Experts in vocational education, tests and measurements, and teaching methods surveyed the Artillery School to evaluate and suggest improvements in (a) methods of instruction, training devices, and use of auditory and visual aids; (b) organization of course content for instruction and practice; and (c) methods of determining student progress and proficiency. Another objective was to identify problems that might be the subject of experimental research. Detailed recommendations were presented in connection with the various departments of the school, its organization, the grading and evaluation system, and the student body.

SHOCKACTION—Division No. 2 (Armor)

Sub-Unit

Evaluation and Improvement of Individual Training for Tank Crewmen

"Who Will Command Our Tanks?" by Robert A. Baker, *Armor*, vol. LXVI, no. 3, May-June 1957. I

***The Determination of Job Requirements for Tank Crew Members*, Technical Report 47, by Robert A. Baker, May 1958. I**

AD-202 155

As a first step in improving tank crew proficiency, a study was made of what each member of a tank crew needs to know in order to do his job. Training literature and crew activities were studied, and experienced officers were consulted. Lists of job requirements covering the duties and skills for the four crew positions (tank commander, gunner, driver, loader) were established. The lists are being used in the construction of an experimental armor replacement training program and are potentially useful in various aspects of training and performance evaluation.

***An Evaluation of the On-the-Job Proficiency of Trained Tank Crewmen*, Special Report 14, by Robert A. Baker, Eugene F. MacCaslin, Kenneth H. Kurtz, and Donald J. Baerman, June 1958. IV**

AD-200 849

This study sought to determine (a) the armor knowledge and operational skill of trained, experienced tank crewmen and (b) the existing degree of crew interchangeability (i.e., how well crew members can serve in other crew positions as well as their own). Knowledge and performance tests on the essential armor skills (given to 256 TOE tank crewmen) showed that individual proficiency levels are low; job activity records showed that little time is given to training in TOE units. Paper-and-pencil tests on the four crew jobs (given to 715 TOE crewmen) showed that crew members tend to specialize rather than to be interchangeable.

***The Achievement of Active-Duty and Reserve Tank Crewmen in Areas of Essential Armor Knowledge*, Special Report 15, by Robert A. Baker, November 1958 (For Official Use Only). III**

AD-210 506

The purpose of this study was to determine (a) the level of fundamental armor skills of tank crew enlisted personnel in active-duty units, and (b) the status of armor training in the National Guard and the U.S. Army Reserve. The Armor Proficiency Test, a 198-item paper-and-pencil test, was administered to more than 5,000 armor personnel at five levels of training and experience: (a) armor personnel with no armor training, (b) armor personnel with eight weeks of Advanced Individual Armor Training, (c) tank crew personnel in TOE armor organizations within the continental United States, (d) tank crew personnel maintained at "combat-ready" status in Europe, and (e) tank crew personnel from National Guard and U.S. Army Reserve armor units. Information was obtained on aptitude, crew assignment, enlisted rank, previous training and experience in armor, and combat experience of the individuals tested. In addition, information was obtained from the unit commander or Army advisor, or both, at each of the reserve units on strength and training status and problems. (U)

***The Effects of Increasing and Decreasing Training Time on Proficiency in the Critical Armor Skills*, Technical Report 55, by Robert A. Baker, Boyd L. Mathers, and Eugene G. Roach, June 1959. V**

AD-218 272

As a basic step toward increasing efficiency in armor training, this study was conducted primarily to determine how the proficiency of the typical armor trainee varies, in the most important skill areas, with the amount of instruction time. Secondary purposes were (a) to identify skills not easily mastered with increased practice alone, and (b) to determine the effect of aptitude on learning these skills. Twenty subjects and skills were selected by armor training personnel as the most important subjects covered in the AIT phase of ATP 17-201. Comparable groups

SHOCKACTION (Cont.)

Sub-Unit

(120 per group) received training for the standard period or for half, twice, or three times the standard period in the selected subject matter, and were tested after completing each instruction unit. Results were compared by training time and by aptitude level, and the most difficult skills were identified. Recommendations for developing improved training methods are discussed.

'Tank Commander Training in the Reserve Components,' by Robert A. Baker, *Armor*, vol. LXVIII, no. 4, July-August 1959. III

***An Improved Advanced Individual Training Program for Armor*, Technical Report 59, by Eugene F. MacCaslin, Arnold B. Woodruff, and Robert A. Baker, December 1959. AD-230 320 VI**

As the final phase in research on tank crew proficiency, an experimental Armor AIT program was developed to improve training for the jobs of tank driver, loader, and gunner. Performance of a company trained by the six-week experimental program was compared with performance of a control company just completing the standard eight-week AIT program. The experimental company performed better than the control company in 11 of 21 skill areas tested, including the more complex gunnery skills essential in combat, and scored comparably in 7 skill areas. Adoption of the experimental program was recommended as requiring less time and training cost, without lessening proficiency in essential armor crew skills. The principles and techniques used in the training program for improving instruction were recommended for use, where appropriate, in other Army training programs.

***The Tank Commander's Guide* (3d edition), by William L. Warnick, LTC John G. Cook, USA Ret., and Robert A. Baker (eds.), The Stackpole Company, Harrisburg, Pa., September 1963. I**

Research By-Products resulting from this research effort are listed in Part III.

SPANOCON—Division No. 2 (Armor)

Sub-Unit

Human Factors Influencing Span of Control Within Military Organizations

SPANOCON: Span of Control, 2. Effect on Reliability of Free and Forced Distributions in Rating, Research Memorandum by Dennis Cannon and Howard C. Olson, August 1961; paper read at meeting of APA, 1961.

II

AD-488 615L

In evaluating performance with a rating scale, it was questioned whether forcing the distribution of responses would affect the reliability of the responses. Seventy-nine subjects responded to 51 situational leadership problems on two tests. Three raters independently scaled the 79 subjects' responses to each problem, using a five-point scale, first rating without regard to the ultimate distribution of responses, and then forcing the distribution into an essentially normal, symmetrical shape. Reliabilities estimated by intraclass correlation ranged from .72 to .88. There were no significant differences between the reliabilities resulting from the free distribution and the forced distribution ratings.

SPANOCON: Span of Control, 1. Development of a Knowledge-Free Span of Control Test, Research Memorandum by Alfred A. Longano, L. Dennis Cannon, and Howard C. Olson, May 1962.

II

AD-488 614L

The report describes the Knowledge-Free Span of Control Test (K-F Test), which was designed to increase knowledge of four functions of span of control in a setting in which specific knowledge will have a minimal effect on test performance. The particular functions tested were span of attention, memory, planning, and judgments. Test apparatus is described and illustrated. Appendices show construction and operation of test, test manual, and test items.

SPECIAL—Director's Office¹

Training in Special Warfare, Counter-Insurgency and Related Missions

Unconventional Warfare: An Annotated Bibliography of Paperback Books, Research Memorandum by Franklin Mark Osanka, August 1962.

AD-295 022

A Bibliography on the Role of Air Power in Guerrilla and Counter guerrilla Operations, Research Memorandum by Franklin Mark Osanka, November 1962.

AD-295 020

Counterinsurgency Training: A Selected Subject Bibliography, Research Memorandum by Franklin Mark Osanka, November 1962.

AD-295 021

Guerrilla Warfare Readings, Research Memorandum, Franklin Mark Osanka (ed.), December 1962.

¹Related research is reported under Work Units CIVIC and AREA.

SQUADTRAIN—Division No. 4 (Infantry)

Sub-Unit

Use of the Rifle Squad Field Problem for the Evaluation and Improvement of the Tactical Training of the Infantry Rifle Squad

Tactical Training of the Infantry Rifle Squad, Technical Report 18, by M. Dean Havron, William A. Gorham, Peter G. Nordlie, and Ralph G. Bradford, June 1955 (Subcontractor: Psychological Research Associates).

AD-68 573

This study was designed to develop training methods to improve the effectiveness of rifle squads. A new squad-training program was developed by combining elements from four experimental methods. As tested by combat readiness performance test scores, this method was superior to standard squad-training methods.

STALK—Division No. 2 (Armor)

The Time Required to Achieve a Hit With the Main Armament of Several U.S. Tanks in Their Present State of Development

Studies Made by Human Research Unit Nr 1, CONARC During Project STALK: Part I—Results of Interviews With the STALK Crew Members (U), Special Report 8, by Andrew J. Eckles III, Melvin A. Schmitz, and Norman Willard, Jr., June 1957 (CONFIDENTIAL).

I

As part of Project STALK, conducted jointly by the Ballistics Research Laboratory and Office, Chief of Army Field Forces, in 1953, the Armor Human Research Unit measured crew preferences and attitudes toward the different tanks and equipment used in the project. The 140 crew members (25 five-man crews, with alternates) were interviewed with regard to such factors as advantages and disadvantages of operating the various tank models, vision characteristics, comfort and safety, range finder operations, and job load.(U)

Studies Made by Human Research Unit Nr 1 During Project STALK: III. Selection and Training of Stereoscopic Range Finder Operators (U), Staff Memorandum by Norman Willard, Jr., February 1957 (CONFIDENTIAL).

III

Training of Scientific and Technical Information System Personnel

Projected Manpower Needs, and Projected Training Requirements for Operators and Users of Future STINFO Systems, Technical Report 66-7, by C. Dennis Fink, Herbert B. Leedy, and John F. Hayes, June 1966.

AD-635 132

Training problems which might arise due to establishment of new Department of the Army Scientific and Technical Information (DA STINFO) systems were examined with respect to projected manpower requirements, personnel supply, and training requirements. It was concluded that (a) future needs for system designers can be met through the use of contractor and senior DA STINFO personnel; (b) future needs for administrators and operators of STINFO centers and systems will not be great, provided that the DA can retain those persons now in the DA STINFO system; (c) training of STINFO system administrators and operators can be improved, and suggestions were made regarding the use of handbooks, job aids, and monthly publications; (d) training of administrators and operators for new STINFO systems should await the development of fairly precise specifications for these systems; and (e) the need to train and/or familiarize "users" of STINFO systems is a crucial problem which needs immediate attention. User training procedures and materials, to include the development of user handbooks and job aids, are discussed.

STIR—Motivation, Morale, and Leadership Division

Sub-Unit

A Study of Factors Contributing to Delinquency in the Army

"Situation and Personal Variables in AWOL Behavior," paper read at meeting of APA, 1953.

A *Preliminary Investigation of Delinquency in the Army*, Technical Report 5, by Hobart G. Osburn, Charles Brown, Janice Chreitzberg, Wayne Hield, Edward Seidel, and Donald Watson, April 1954.

AD-29 029

A general survey was made of the many possible factors influencing delinquency (especially AWOL) in the military service. Delinquency was found to be more highly related to background and personal characteristics than to specific Army situations, although some Army situations appear to be related to soldiers' delinquent behavior.

SWINGSHIFT—Division No. 3 (Recruit Training)¹

Techniques and Training Methods for Improving Individual and Squad Infantry Performance in Operations During Limited Visibility

§ "Salvage the Blind Warrior," by COL Henry E. Kelly, USA Ret., *Infantry*, vol. 50, no. 2, February-March 1960.

§ A *Provisional Core Curriculum for Infantry Night Operations Training: Conceptualization and Proposed Content*, Research Memorandum by Gilbert L. Neal, December 1960. AD-268 399

§ *Review and Discussion of Tentative Operating Characteristics and Employment of Ground Surveillance Radar Authorized in the Infantry Battle Group (July 1959)*, Research Memorandum (revised) by Gilbert L. Neal, April 1960 (For Official Use Only).

Moonlight and Night Visibility, Research Memorandum by Thomas F. Nichols and Theodore R. Powers, January 1964.

AD-438 001

A summary and discussion of published data and information relevant to visibility under low levels of natural illumination is presented. Those changes that occur in the nature and intensity of light between sunset and sunrise are described and related to the visibility of objects of military significance. Six field studies of night target detection are reviewed and assessed as to comprehensiveness in terms of a set of factors that affect visual perception. Procedures for the preparation of moon diagrams and charts that provide comprehensive information on the potential availability of moonlight are described.

¹This Work Unit was initiated at Division No. 4 (Infantry). The symbol § indicates an item prepared at Division No. 4.

TANKER—Division No. 2 (Armor)

Sub-Unit

Improved Methods for Training Tank Commanders

Improving Tactical Training for Tank Commanders: Test Development and Performance Assessment, Technical Report 82, by Shepard Schwartz and Arthur Floyd, Jr., March 1963.

AD-402 802

A test evaluating the tactical performance of tank commanders was developed and two forms were administered to 41 TCs. Subjects were scored on preparation for the mission, navigation, target detection, fire commands, gunnery, accuracy of reporting, speed of reporting, and use of phonetic alphabet. Performance varied considerably among the areas, and the results suggested where remedial training for TCs might be appropriate. Sufficient gains were made between first and second testing in four areas to suggest that the test might have considerable utility for training.

Research By-Products resulting from this research effort are listed in Part III.

TEXTSTRUCT-Division No. 5 (Air Defense)
Methods of Instruction in Technical Training

Sub-Unit

"Preliminary Studies in Automated Teaching," by Robert F. Mager, paper read at National IRE Convention, New York, March 1959.

An Annotated Bibliography on the Automation of Instruction, Research Memorandum by Charles L. Darby, July 1959. AD-228 766

"Teaching: Today and Tomorrow," by Robert F. Mager, *IRE Student Quart.*, September 1959.

"Developing New Instructional Techniques," by P.G. Whitmore, paper read at Symposium, meeting of SWPA, 1960.

An Evaluation of an Experimental Meter Reading Trainer, Research Memorandum by Robert G. Smith, Jr. and Richard R. Ridenour, October 1960. I

Results of Exploratory Investigations Conducted for the Purpose of Planning a Research Program on Instructional Methods, Research Memorandum, March 1961. AD-253 395 I

Exploratory studies of military training were conducted in order to aid the development of a systematic program for more efficient and less time consuming technical instruction. The studies dealt with group instruction and response, and automated instruction. Developing a systematic research program involved studying training objectives and content, programing and sequencing, and training administration, including appropriate techniques for student motivation and evaluation.

"Programmed Instruction-Where We Are Today in the Military," by William H. Melching, paper read at Symposium, meeting of Texas Psychological Association, San Antonio, 1961.

Teaching Machines and Programmed Instruction - Some Factors to Consider in Implementation, Research Memorandum by Robert G. Smith, Jr., August 1961. AD-632 188 II

"Deriving and Specifying Instructional Objectives," by P.G. Whitmore, paper read at Symposium, meeting of APA, 1961. II

"Military Control - A Frequently Missed Training Opportunity," by Robert G. Smith, Jr., paper read at meeting of APA, 1961.

"A Rational Analysis of the Process of Instruction," by P.G. Whitmore, *IRE Trans. on Educ.*, December 1961. II

"Some Research Needs in Selecting and Training Programmers," by William H. Melching, paper read at Symposium, meeting of Texas Psychological Association, December 1961.

A Procedural Guide to the Programming of Instruction: Preliminary Report, Research Memorandum by William H. Melching, March 1962. AD-279 569 II

"Research Problems Caused by the Implementation of Programmed Instruction," by Robert G. Smith, Jr., paper read at meeting of SWPA, 1962. II

The Text of an Orientation Workshop in Automated Instruction, Consulting Report by William H. Melching, John A. Cox, Jesse C. Rupe, and Robert G. Smith, Jr., July 1962. AD-637 117 II

A series of orientations on teaching machines and programed instruction was given to military and civilian personnel responsible for making decisions and directing actions to be taken regarding programed instruction. The text gives a comprehensive description of programed instruction and what is involved in developing it,

TEXTSTRUCT (Cont.)

Sub-Unit

its advantages and problems, useful information for determining its applicability to specific training situations, and general knowledge to assist in realistic evaluations and decisions regarding programmed instruction. Appendices list pertinent objectives, terms, tests, and slides.

Studies of Fixed Procedures Training: A Preliminary Test of Self-Instructional Method, Research Memorandum by Paul G. Whitmore, July 1963.

AD-420 453

A Handbook for Programmers of Automated Instruction, procedural guide by William H. Melching, Robert G. Smith, Jr., Jesse C. Rupe, and John A. Cox, September 1963.

AD-632 558

Evaluation of an Auto-Instructional Program on the First Week of a Basic Electronics Course, Research Memorandum (revised) by William H. Melching, Harold E. Christensen, and Albert L. Kubala, March 1964.

AD-601 681

II

II

Research By-Products resulting from this research effort are listed in Part III.

TICK—Psychological Warfare Division
A Study of Communist Motivation

Sub-Unit

- Wang Tsun-Ming, Anti-Communist: An Autobiographical Account of Chinese Communist Thought Reform, Staff Memorandum, November 1954.** **AD-488 593L** II
- Koje-do in Complication: An Analysis of the Social and Political Organization of Korean Prisoners of War in UNC POW Camps, 1950-1951 (U), Staff Memorandum by Kim Sun Ho, Captain, ROKA [revised and edited by William C. Bradbury, Jr.], May 1955 (CONFIDENTIAL).** III
- Determinants of Loyalty and Disaffection in Chinese Communist Soldiers During the Korean Hostilities: An Exploratory Study (U), Special Report 7, by William C. Bradbury and Jeane J. Kirkpatrick, October 1956 (CONFIDENTIAL).** **AD-115 709** I
 A number of Chinese Communist prisoners of war during the Korean conflict were interviewed to obtain detailed information regarding the social and cultural context within which they acted, and data on their personal experiences under the Communists. The 43 men interviewed were selected to provide a wide range of the backgrounds and orientations existing in the PW population. The data were evaluated as to broader applicability. (U)
- Methodological Considerations Involved in an Exploratory Study of the Motivations of Soldiers From the Chinese Communist Forces in Korea, Staff Memorandum by William C. Bradbury, October 1956.** **AD-135 515** I
- Motivations of Chinese Communist Soldiers: A Basis for Research in Support of Military Psychological Warfare, Staff Memorandum by William C. Bradbury, May 1958 (For Official Use Only).** II
- The Political Behavior of Korean and Chinese Prisoners of War in the Korean Conflict: A Historical Analysis, Technical Report 50, by Samuel M. Meyers and William C. Bradbury, August 1958 (For Official Use Only).** **AD-203 606** III
 The behavior and motivation of groups of Chinese and Korean prisoners of war during the Korean conflict were studied to provide a basis for control and utilization of oriental Communist prisoners of war in the event of future hostilities. The report deals primarily with the period from June 1950 to June 1952 and is based on interviews with PWs and key custodial personnel, and various Army and PW documents. The development of PW organization and activities is traced, and their relations to PW behavior and the conflict with the U.N. custodial authority are analyzed. (U)
- The Role of Traditional Orientations Toward Social Relations in Chinese Responses to Communist Military-Political Control, Staff Memorandum by Samuel M. Meyers, November 1958.** **AD-483 127** II
- Adjustment of Chinese Soldiers to the Communist Demand for Ideological Participation: An Exploratory Study Based on the CCF in the Korean War, Staff Memorandum by Jeane J. Kirkpatrick and Pio D. Uliassi, February 1959.** **AD-637 836** II

TRACE—Division No. 1 (System Operations)

Sub-Unit

**Development of Improved Electronic Trouble Shooting Procedures
and Teaching Methods**

Methods and Devices for Teaching Data Flow to Electronics Maintenance Personnel,
Research Memorandum, A. James McKnight (ed.), November 1962.

AD-298 699

I

Pilot studies were conducted on a brief course in general principles of trouble shooting logic for electronics maintenance training. It was found that, after prolonged periods dealing with a particular signal-flow pattern, students tended to concentrate on specific symptom-cause relations rather than on principles. This experience suggested that important general aspects of trouble shooting logic should be covered before training in any particular system, and that prolonged practice on a particular system should be confined to those the man being trained will use. Several signal-flow simulators were developed for training and training research.

TRACK—Division No. 2 (Armor)

The Training Effectiveness of the Track and Suspension Trainer Device

The Training Effectiveness of the Track and Suspension Trainer, Device 29-FA-61, Information Report by Victor H. Denenberg, January 1954.

AD-488 588L

TRADER—Director's Office¹

Sub-Unit

**Developing Guidance for Establishing Requirements and
Characteristics of Training Devices**

Application of a Method of Evaluating Training, Research Memorandum by John A. Cox,
November 1962; paper read at meeting of Texas Psychological Association, December 1962.

AD-288 251

I

"Application of a Method of Evaluating Training," by John A. Cox, *J. Appl. Psychol.*,
vol. 48, no. 2, April 1964.

I

Data were processed with Ward Edwards' formulation of value of training which includes estimates of proficiency level attained, worth of a trained man in dollars, and training costs in dollars. Difficulties which were encountered and techniques of overcoming them are reported. Results of the evaluation, which appear to be realistic, are reported.

TRAINER—Division No. 2 (Armor)

An Evaluation of the Prototype Model of a Tank Hull Trainer

The Training Effectiveness of a Tank Hull Trainer, Technical Report 3, by Victor H. Denenberg, February 1954.

AD-26 012

Tank Hull Trainer 3-T-3 was used to teach three phases of tank driving and maintenance: (a) Starting and Stopping Procedures, (b) Driver's Instruments and Controls, and (c) Track and Suspension System. A mock-up of the instrument panel and driver's controls was used as a second training aid for the first two lessons. The effectiveness of these aids in comparison with the ATP method was determined by written and performance tests. For the first lesson, the mock-up was better than the hull trainer and almost as good as the ATP method; conversely, the mock-up gave optimum results. For the second lesson, no significant difference was found among the three procedures; again, the mock-up appeared to be the most economical. Trainees acquired more information on track and suspension system from the hull trainer than from working with M47 tanks.

¹Research under Work Unit TRADER was performed at several HUMRRO research divisions; items listed reflect research performed by Division No. 5 (Air Defense).

TRAINFIRE—Division No. 4 (Infantry)

Sub-Unit

Experimental Development of Improved Proficiency Tests and Training Methods for Improving the Effectiveness of Combat Riflemen

The Effect of Personalized Stocks on Rifle Marksmanship, Staff Memorandum by Charles K. Ramond, Howard H. McFann, and Seward Smith [April 1954]. AD-479 106L I

Target Placement on a Detection Proficiency Course, Staff Memorandum by Charles K. Ramond and Charles R. Mighell [June 1954]. I

A Comparative Test of Accuracy and Speed of Fire With the Improved Loop Sling, With the Combat Rifle Sling, and Without a Sling, interim report by John A. Hammes, Howard H. McFann, and Albert A. Ward, August 1954. I

A Comparative Test of Accuracy of Fire With the Loop Sling, the Combat Rifle Sling, the Hasty Sling, and Without a Sling, Parts II and III, interim report by John A. Hammes, Howard H. McFann, John E. Taylor, and John O. Cooper, February 1955. I

Realistic Targets for the Training and Testing of Combat Riflemen, Staff Memorandum by Howard H. McFann, John E. Taylor, Seward Smith, and John A. Hammes, April 1955. I

TRAINFIRE I: A New Course in Basic Rifle Marksmanship, Technical Report 22, by Howard H. McFann, John A. Hammes, and John E. Taylor, October 1955. AD-89 606 I

This study was designed (a) to develop a practical basic course of rifle marksmanship instruction which will prepare the soldier to use his rifle effectively in combat and (b) to develop proficiency tests based upon combat criteria, to measure the adequacy of this training. As measured by the ability to detect combat-type targets, and the ability to hit those targets, once detected, the experimental training course, without increasing training time, better prepares the soldier for effective use of his rifle in combat than does the conventional course.

"The TRAINFIRE Marksmanship Training," by Henry E. Kelly, paper read at Tripartite Conference, Fort Benning, Ga., November 1956.

"TRAINFIRE Zero," by LTC Edgar S. Sanders, *Amer. Rifleman*, vol. 105, no. 1, January 1957.

"More About TRAINFIRE I"—by COL Henry E. Kelly, USA Ret.; Combat Developments Office, USAIS; and Weapons Department, USAIS—*Infantry*, vol. 47, no. 2, April 1957. I

"From TRAINFIRE I to TRAINFIRE II," by LTC E.S. Sanders, *Army*, vol. 7, no. 10, May 1957.

"Shoot Fast and Straight," by COL Nelson I. Fooks, *Army Info. Dig.*, vol. 12, no. 6, June 1957.

TRAINFIRE II: A New Course in Basic Technique of Fire and Squad Tactics, Technical Report 41, by John A. Hammes, Henry E. Kelly, Howard H. McFann, and Joseph S. Ward, July 1957. AD-140 445 II

As part of research to improve the effectiveness of combat riflemen, an experimental course in Technique of Fire and Squad Tactical Training was designed and compared with conventional training. Two hundred twenty inductees were trained in two groups, one by the standard program and the other by the experimental course. Comparisons following training were made by means of three proficiency tests: Squad in Day Defense, Squad in Day Attack, and Squad on Day Combat Patrol. In all three areas, the experimental program better prepared the rifle squad than did the conventional program.

TRAINFIRE (Cont.)

Sub-Unit

"Operation TRAINFIRE: A New Idea in Troop Training," by Francis E. Jones, *Armed Forces Mgmt*, vol. 4, no. 11, August 1958.

Improved Silhouette Targets for Marksmanship Training, Research Memorandum, October 1958.

AD-480 147L

Extension of Research in TRAINFIRE I Basic Rifle Marksmanship Course, Research Memorandum, December 1958.

AD-479 630L

An Aiming Point Comparison Study, Research Memorandum, July 1959.

TRAINFIRE V: Extension of Research on TRAINFIRE I Rifle Marksmanship Course (Subsequent to Technical Report 22, October 1955), Research Memorandum, November 1959.

AD-479 631L

"The Last Few Yards," by COL Henry E. Kelly [USA Ret.], *Infantry*, vol. 50, no. 3, April-May 1960.

"Terrain Searching," by COL Henry E. Kelly, USA Ret., *Infantry*, vol. 50, no. 6, October-November 1960.

"What's Wrong With the Squat?" by COL Henry E. Kelly [USA Ret.], *Army*, vol. 12, no. 1, August 1961.

"Defending Those Wide Gaps," by COL Henry E. Kelly [USA Ret.], *Army*, vol. 12, no. 2, September 1961.

"Assembly Areas," by COL Henry E. Kelly [USA Ret.], *Army*, vol. 12, no. 4, November 1961.

TREBLE—Psychological Warfare Division
Exploratory Survey of Music as Used in Propaganda

Sub-Unit

Communist Vulnerabilities to the Use of Music in Psychological Warfare [U], Technical Report 4, by James S. Young, March 1954 (CONFIDENTIAL), with *Catalogue of Music Recordings for Propaganda Broadcasts to Selected Communist Countries* [U] and *Instruction Manual* [U] (both CONFIDENTIAL). AD-27 082

The major areas of vulnerability in target countries to the use of music in psychological warfare were studied, and compositions most appropriate for exploiting those vulnerabilities were selected. This report analyzes the music situation in target countries, estimates vulnerabilities, and suggests ways for exploiting those vulnerabilities. A catalog of music recordings appropriate for use in psychological warfare broadcasts was developed. (U)

TRIGGER—Division No. 2 (Armor)
Monitoring an M1 Training Program Designed to Reduce Flinching

The Relationship Between 1000" Range and Known-Distance Range Rifle Scores, Research Memorandum 3, by Frank J. McGuigan, December 1953. AD-23 851

Statistics obtained from a study of performance of basic trainees on the rifle range showed that scores on the 1000" and the known-distance rifle ranges correlate significantly for slow fire, sustained fire, and total scores. However, individual known-distance performance cannot be accurately predicted on the basis of 1000" range scores, nor can the 1000" range be substituted for the known-distance range as a measure of proficiency.

Evaluation of a Special Live-Firing Trigger-Squeeze Exercise, Technical Report 6, by Victor H. Denenberg and F.J. McGuigan, May 1954. AD-32 656

This study evaluated a special trigger-squeeze exercise developed at Fort Dix as a means of improving M1 rifle performance by eliminating or reducing "flinch." The procedure included extra rounds fired by the trainee during the exercise and the help of specially trained coaches, as well as the anti-flinch trigger-squeeze exercise itself. With each of these variables controlled, the analysis of the findings indicated that the trigger-squeeze exercise did not improve performance.

TV—Division No. 1 (System Operations)
Evaluation of Television in Army Training

Sub-Unit

"Future Trends in Television Teaching and Research," by Joseph H. Kanner, paper read at Symposium, meeting of APA, 1954.

"Present Status of Signal Corps Television Research," by Richard P. Runyon and Joseph H. Kanner, paper read at Symposium, meeting of APA, 1954.

"Procedures for Improving Television Instructions," by Otello L. Desiderato, Joseph H. Kanner, and Richard P. Runyon, paper read at Symposium, meeting of APA, 1954.

Television in Army Training: Evaluation of Television in Army Basic Training, Technical Report 14, by Joseph H. Kanner, Richard P. Runyon, and Otello Desiderato, November 1954.

AD-57 971

This study undertook to measure the comparative teaching effectiveness of television instruction and the Army's regular instruction for representative portions of basic training. The relative teaching effectiveness of kinescope recordings and of regular instruction were also compared. The experimental design permitted separate analysis of the effects of these methods for high- and low-aptitude trainees. Results of the study indicate that (should conditions require) instruction of the types used in this study could be presented by television with the strong assurance that there would be no loss in learning effectiveness.

UNIFECT—Division No. 4 (Infantry)

(Ongoing) Sub-Unit

Procedures for Increasing the Effectiveness of Small Infantry-Type Units

Some Determinants of Small-Group Effectiveness, Research Memorandum (revised) by Clay E. George, October 1962. AD-624 204

Pilot Studies of Team Effectiveness, Research Memorandum by Clay E. George, George R. Hoak, and John Boutwell, February 1963. AD-627 214 I

"Verbal Coordination and Performance in Small Military Teams," by Adie V. McRae, paper read at meeting of APA, 1964. I

"Structures, Training Procedures, and Operations of Small Work Groups," by Clay E. George, paper read at meeting of Georgia Psychological Association, Jekyll Island, Ga., February 1965. I

Interaction Content and Team Effectiveness, Technical Report 66-10, by Adie V. McRae, June 1966. AD-637 311 I

An experiment was performed to study intrateam interaction under controlled conditions. Coordination was a prerequisite for completing a team task and verbal interaction was the sole means of coordination. All such communications were tape-recorded. Communication content was categorized into two major areas related to task demands and to organizational efforts. With time to solve held constant, number of errors correlated negatively with number of communications specifically concerned with effective response to task demands, but did not yield consistent correlations with interaction related to organizational aspects.

UNIROTE--Division No. 3 (Recruit Training)
A Study of Combat Arms Unit Rotation

Sub-Unit

A Survey of Opinions About the Unit Rotation Plan (Operation GYROSCOPE), interim report by Victor B. Cline, Fred J. Shanley, Morris Showel, Irving Richardson, and Martin W. Spickler, January 1955.

AD-488 593L

Opinion questionnaires were administered to 2,550 military personnel to ascertain their reactions to a newly introduced program of unit rotation (Operation GYROSCOPE). Reactions were obtained from 1200 officers and men in the first three TO&E units to be phased into the GYROSCOPE program, from 900 inductees in three reception centers, and from 450 men in six recruiting stations. The GYROSCOPE plan provided important inducements for reenlistment; over 90% of those surveyed felt that unit rotation would be an improvement over the current system. A greater proportion of men with prior service reacted favorably to GYRO than men without prior service.

A Survey of Opinions Regarding Operation GYROSCOPE in the First Division, Staff Memorandum by Victor B. Cline, Irving F. Richardson, Fred J. Shanley, and Morris Showel, July 1955.

AD-488 592L

A questionnaire dealing with attitudes about a new unit rotation plan (Operation GYROSCOPE), reenlistment intentions, and promotion policy was given to a random sample of officers and enlisted men in an infantry division overseas while the division was making final plans for rotating back to the United States.

A Comparison of Reenlistment Intentions With Later Reenlistment Behavior in Three GYROSCOPE Units, Staff Memorandum by Fred J. Shanley, Morris Showel, Victor B. Cline, and Irving Richardson, July 1955.

AD-488 594L

Questionnaires were administered to 1200 officers and men in three TO&E units about to enter a new program of unit rotation, Operation GYROSCOPE, to establish the number and types of men who intended to sign up for the program. Actual reenlistment behavior was then determined by examining each man's 201 file and utilizing recruiting office records and the post locator at each post. It was found that men's reactions to specific features of the GYRO plan related most highly to reenlistment behavior, followed by reactions to various aspects of life in their present Army unit (job satisfaction, personal freedom, etc.). The men's expectations regarding the new GYRO program did not seem to have much to do with their subsequent GYRO reenlistment behavior.

UNIT—Division No. 2 (Armor)

Sub-Unit

Evaluation and Improvement of Tank Platoon Training

"The Miniature Armor Battlefield," by Robert A. Baker, *Armor*, vol. LXIX, no. 5, September-October 1960. II

"R/C Tanks for Realistic Combat Training," by Robert A. Baker, *Electronics*, vol. XXXIII, no. 45, November 1960. II

The Determination of Combat Job Requirements for Tank Platoon Leader and Tank Platoon Sergeant, Technical Report 69, by Eugene G. Roach and Robert A. Baker, March 1961. I

AD-254 701

To analyze the job requirements for tank platoon leaders and sergeants, and to determine the relative importance of the job activities in combat, a master list was prepared on the basis of relevant literature and interviews with key personnel. The jobs in the list were rated by several hundred armor officers and noncommissioned officers in TOE units. A final list of jobs which they considered essential in combat was staffed, and prepared for use by the Army as a basis for determining the content of relevant curricula and proficiency tests, and for expanding the description for MOS 131.7.

A Survey of Problems in the Tactical Training of Armor Units (U), Technical Report 74, by Robert A. Baker, December 1961 (CONFIDENTIAL, Modified Handling Authorized). AD-327 759 I

To obtain military judgments on the requirements for armor tactical training essential to combat proficiency and to identify problems that reduce training effectiveness, 71 questions in eight problem areas were constructed. They were used as a basis for tape-recorded interviews with 40 armor battalion commanders in CONUS and Seventh Army. The results of the interviews in general confirmed the military opinion that led to the survey. Specific suggestions for improving tactical training of armor units were made by the commanders interviewed. (U)

"The Armor Combat Decisions Game," by Robert A. Baker, *Armor*, vol. LXXI, no. 1, January-February 1962. II

"The Tank Platoon Combat Readiness Check," by Robert A. Baker and LTC John G. Cook, USA Ret., *Armor*, vol. LXXI, no. 3, May-June 1962.

"\$600 Tanks Embattled," by Marvin Parrott, *Army*, vol. 13, no. 6, January 1963.

The Development and Evaluation of the Tank Platoon Combat Readiness Check, Research Memorandum, by Robert A. Baker and John G. Cook, April 1963. I

AD-405 840

Development and Evaluation of Systems for the Conduct of Tactical Training at the Tank Platoon Level, Technical Report 88, by Robert A. Baker, John G. Cook, William L. Warnick, and James P. Robinson, April 1964. II

AD-438 845

To provide favorable learning conditions under which to conduct tank platoon tactical training, and to overcome the training difficulties of space and cost, a series of tactical training exercises and two training systems—a Miniature Armor Battlefield (MAB) and an Armor Combat Decisions Game (CDG) (portable war gaming devices)—were developed and evaluated. Tank platoon leaders and crews trained for a week on the MAB performed better (by 18% and 23% respectively) on a field performance test than comparable officers and crews not so trained; platoon leaders trained for a week on the CDG performed better (by 25%) than comparable officers. Both systems will effectively prepare tank platoon personnel for field training with operational equipment. The advantages and disadvantages of the systems are discussed.

Research By-Products resulting from this research effort are listed in Part III.

UPSTREAM—Division No. 5 (Air Defense)

Sub-Unit

**Procedures for Anticipating Training Requirements for Future
Air Defense Guided Missile Systems**

"Human Resources Research in Managing the Weapons System," by W. Loren Williams, Jr., paper read at Symposium on Reliability of Weapons Systems, held by the Western Electric Co., Winston-Salem, N.C., September 1958.

"Anticipating Training Requirements for Future Weapon Systems," by J.C. Rupe, paper read at Symposium, meeting of SWPA, 1960.

Some Problems in Predicting Training Requirements for Future Weapon Systems, Research Report 6, by Robert A. Goldbeck and Emanuel Kay, November 1960 (Subcontractor: American Institute for Research).

AD-246 880

This study included: (a) A review and summary of several earlier AIR studies concerned with prediction of job and training requirements, delineating problem areas for which solutions must be found if a complete and systematic procedure for predicting the training requirements of future weapon systems is to be developed; (b) an attempt to develop training requirements information for a specific missile system (Hawk) just prior to development of a complete prototype, listing sources of information available at this stage and assessing their relevance in predicting future training needs. Administrative arrangements needed with system-development agencies to facilitate effective predictions of human factor requirements are discussed.

"The Prediction of Training Requirements for Future Weapon Systems," by J.C. Rupe, paper read at Symposium, meeting of RMPA, 1961.

"Procedures for Obtaining Human Factors Information as an Integral Part of Weapon System Design and Development," by J.C. Rupe, paper read at 7th Annual Army Human Factors Engineering Conference, University of Michigan, October 1961.

"The Prediction of Training Requirements for Future Weapon Systems," by J.C. Rupe, paper read at meeting of Human Factors Society, New York, November 1962.

The Prediction of Training Requirements for Future Weapon Systems: A Personnel Support System Research and Development Process, Technical Report 83, by J.C. Rupe, April 1963.

AD-403 280

The current state of the art—particularly that of the Army—for predicting personnel and training requirements during weapon system design and development was determined by means of a literature review. The main object of this study was to develop procedures for effectively and economically providing human factors data, and products based upon them, needed for concurrent building of a Personnel Support System (conceived to be the operator and maintenance personnel for a weapon system and the basic job data, equipment, and materials required for selecting and training these personnel).

Research By-Products resulting from this research effort are listed in Part III.

VIGIL—Division No. 5 (Air Defense)

Sub-Unit

**Methods and Techniques for Improving Performance
of Air Defense Missile Operator Personnel**

"Research on Operators of Air Defense Systems," by Robert D. Baldwin, paper read at Symposium, meeting of SWPA, 1960.

The Accuracy of Two Modes of Radar Tracking for Two Visual Noise Levels, Research Memorandum by Bruce O. Bergum, I. Charles Klein, and Robert D. Baldwin, May 1960. II

Detectability on a PPI Scope as a Function of Target Velocity and Noise Level, Research Memorandum by Robert D. Baldwin, Davis J. Chambliss, and A. Dean Wright, February 1961. II
AD-252 191

"Vigilance Research," by Bruce O. Bergum, paper read at Symposium, meeting of RMPA, 1961.

"Instability in Analogue-Type Target Simulators," by R.D. Baldwin, paper read at NTDC Conference on Radar Simulation, Port Washington, N.Y., May 1961. II

Development and Use of Proficiency Tests for Nike System Launching Platoon Operators, Technical Report 72, by James D. Hitt, Jr., and Robert D. Baldwin, August 1961. AD-263 169 I

The object of this study was to develop individual tests of proficiency suited to augmenting crew rating procedures used in Army Air Defense systems. Specifically, job skill and job knowledge tests were developed for two Nike-Ajax launching platoon operator positions—the Section Operating Control Indicator Operator and the Chief of Section—based on crew drill procedures prescribed for air defense alert. The tests proved to have value (a) as a quality control device, that is, they provide feedback on training needs which command personnel can use to improve subsequent training, and (b) in detecting personnel errors not observed in crew ratings made during Annual Service Practice.

Radar Tracking Accuracy as a Function of Training and Task Variables, Technical Report 73, by Robert D. Baldwin and A. Dean Wright, October 1961. II
AD-264 927

To evaluate the effect of selected training, personnel, and job factors on accuracy of angle tracking by radar operators, 36 subjects were briefly trained in tracking, half with simulated jamming and half without. Divided into four equal groups, they were tested with simulated targets having alternate headings of 1600 and 4800 mils. Results indicated that pattern and magnitude of tracking errors differed as a function of target heading, and tracking errors tended to increase with task duration. Differences in GT aptitude within a score range of 90-120 were not found to be related to accuracy of aided-rate azimuth tracking.

A Survey and Analysis of Vigilance Research, Research Report 8, by Bruce O. Bergum and I. Charles Klein, November 1961. IV
AD-267 223

Empirical data drawn from a survey of the research literature on vigilance behavior are presented in terms of the effects on vigilance of variables discussed under the groupings of task, environmental, and motivational factors. The adequacy of current interpretations of vigilance data is considered for three classes of theories: conditioning, expectancy, and motivation. Approaches to the solution of the vigilance program are discussed in terms of anticipated technological developments, and areas of research on monitoring problems associated with air defense systems are suggested.

"Target Detectability as a Function of Target Speed, Noise Level, and Location," by Robert D. Baldwin, Davis J. Chambliss, and A. Dean Wright, *J. Appl. Psychol.*, vol. 46, no. 1, February 1962. II

An experiment was conducted using a PPI radar display on which 40 subjects observed targets displayed in each of four contiguous 30-degree scope sectors at

each of four radial velocities under two levels of visual noise. Analysis of variance of the mixed latin-square design did not reveal reliable differences in scores due to velocity, noise level, or velocity orders. More target designations occurred for the inner than the outer contiguous scope sectors, although the ratios of correct to total calls per sector were not different. These results were interpreted as being due to differences in scan frequency rather than reinforcement frequency.

Target Detectability on an A-Scope as Influenced by Vertical and Horizontal Video Amplification, Research Memorandum by A.D. Wright and R.D. Baldwin, February 1962. AD-479 185L II

The Effects of Pairing, Rest Intervals, Signal Rate, and Transfer Conditions on Vigilance Performance, Research Memorandum by Bruce O. Bergum and Donald J. Lehr, March 1962. AD-605 151 IV

An Attempt to Develop a Radar Operator Screening Test: A Report of Simulator Instability, Technical Report 79, by Robert D. Baldwin and A. Dean Wright, June 1962. AD-278 207 II

As a possible means of improving the effectiveness of radar operators, a short screening test—a by-product of previous research—was given to air defense missile crewman trainees in an attempt to identify individuals likely to be particularly adept at target detection. Subjects were given a proficiency test to validate the training implications of the earlier findings. The high correlations originally found between scores on the screening test and the proficiency test were discovered to have been a consequence not of consistent differences in human abilities, but of instability in simulator output signals. It was concluded that it is not feasible to develop any type of screening test using radar simulation equipment having tolerances in "burn through" range greater than 1% maximum radar range.

The Relation Between Radar Detection and the Observer's Concept of a Target, Research Memorandum by Robert D. Baldwin, A. Dean Wright, and Donald J. Lehr, June 1962. AD-288 440 II

"Target Detectability on an A-Type Radar Display as a Function of Horizontal and Vertical Video Amplification," by A.D. Wright and R.D. Baldwin, paper read at meeting of APA, 1962.

An experiment was conducted to determine the effect of horizontal and vertical video amplification upon time to detect targets in noise on an A-type radar display. Statistical analysis revealed a significant inverse relationship between target detection time and horizontal video amplification. In contrast, vertical video amplification by itself, or in conjunction with horizontal video amplification, did not significantly affect detection performance. The facilitative effect of horizontal video amplification was attributed to the amplification of specific target characteristics which perceptually differentiate the target from the noise. The effect of vertical video amplification was attributed to the Weber-Fechner phenomenon.

"Vigilance Performance as a Function of Paired Monitoring," by Bruce O. Bergum and Donald J. Lehr, J. Appl. Psychol., vol. 46, no. 5, October 1962. IV

Two experiments were performed to determine the effect of pairing of observers upon individual monitoring performances. Both studies employed two groups of 20 subjects each. Group 1 consisted of paired monitors and Group 2 consisted of isolated monitors. Experiment I employed a rate of 24 signals per hour; Experiment II employed a rate of 6 signals per hour. All subjects monitored a circular light display for a period of 90 minutes. Neither experiment indicated an overall facilitation of performance resulting from pairing, but both demonstrated significant relationships between performances of the members of the pairs. It was hypothesized that the degree of conversational interaction between members of the pairs might account for the observed effect.

- "Vigilance Performance as a Function of Interpolated Rest,"** by Bruce O. Bergum and Donald J. Lehr, *J. Appl. Psychol.*, vol. 46, no. 6, December 1962. IV

Two experiments were performed on the effects of interpolated rest upon monitoring performance at both high and low signal rates. Experiment I employed two groups of 20 subjects each; Experiment II employed two groups of 10 subjects each. One group of subjects worked on a light monitoring task for three 30-minute periods separated by 10-minute rest periods. The second group worked continuously for 90 minutes on the same task. Experiment I employed 24 signals per hour; Experiment II employed 6 signals per hour. The results indicated a highly significant facilitation of detection performance as a result of interpolated rest at both signal rates and demonstrate the effectiveness of relatively brief rest intervals in maintaining high performance even with low signal rates.

- "The Effects of Authoritarianism on Vigilance Performance,"** by Bruce O. Bergum and Donald J. Lehr, *J. Appl. Psychol.*, vol. 47, no. 1, February 1963. IV

An experiment was performed on the effects of authoritarian monitoring conditions upon vigilance performance. Two groups of 20 subjects each were employed. One group worked at a light monitoring task for a period of 135 minutes without rest and alone. The second group worked at the same task for the same amount of time but was observed by either a commissioned or noncommissioned officer according to a random visiting schedule. Signal rate was 12 signals per hour. The results indicated a highly significant facilitation of detection performance resulting from observation by the officers. It was suggested that these conditions represent an extreme point along a dimension of perceived threat to the monitor.

- Vigilance Performance as a Function of Task and Environmental Variables, Research Report 11,** by Bruce O. Bergum and Donald J. Lehr, May 1963. IV

AD-404 212

Experiments were conducted to compare the effects on vigilance of paired monitoring, high and low signal rates, rest periods, knowledge of pretest performance and of monitoring scores, rewards, supervision, and false signals. A final study compared four combinations of the three most effective variables—multiple monitoring, rest periods, and supervision. The results suggest that significantly high levels of performance can be maintained over fairly extended time periods, with careful selection of conditions.

- A Filter Method of Adjusting PPI's, Technical Report 85,** by Robert D. Baldwin and A. Dean Wright, June 1963 (For Official Use Only). II

AD-408 3/4

The Defence Research Board of Canada developed a Filter Method of adjusting plan position indicators using neutral density filters. To determine how this method could be applied to U.S. Army air defense radars, and to identify the neutral density values resulting in adjustments giving optimum visibility conditions, tests were conducted using P-19 and P-7 phosphor screens on the PPIs of the Nike-Hercules and Hawk systems. It was found that no filter was needed to adjust the Sweep Intensity level. For the Hercules system, using a normal receiver, a 2.0 neutral density filter provided an optimum adjustment of the Video Gain control; for the Hawk system, using moving target indicator receiver, an optimum level was achieved with a 3.0 filter. The results indicate that type of phosphor screen used does not determine filter density, whereas type of receiver circuit used does affect optimum density. (U)

- "The Influence of Task and Environmental Variables on the Maintenance of Vigilant Performance,"** by Bruce O. Bergum, paper read at 9th Annual Army Human Factors Research and Development Conference, October 1963.

VIGIL (Cont.)

Sub-Unit

Vigilance: A Guide to Improved Performance, Research Bulletin 10, by Bruce O. Bergum, October 1963. IV

AD-424 888

This Research Bulletin presents an informal report on the key findings or implications that have emerged so far from experimental studies of vigilance performed by various agencies. The emphasis is not upon theories of vigilance behavior but on implications for action in setting up vigilance situations. References from which material was drawn for various topics are listed at the end of the report.

"Monetary Incentives and Vigilance," by Bruce O. Bergum and Donald J. Lehr, J. Exper. Psychol., vol. 67, no. 2, February 1964. IV

A visual vigilance experiment was performed in which (a) the effects of monetary incentives, and (b) the effects of removal of these incentives were tested. Twenty experimental and twenty control subjects were tested in two sessions of 60 and 90 minutes each. The experimental group received 20¢ for every signal correctly detected and had 20¢ deducted for every signal missed in the first session, but received no reward in the second session. The control group was never rewarded. The rewarded group performed better than the controls in the first period of the first session, and poorer in the final period of the second session. These effects were interpreted as resulting from experimentally induced changes in the motivational level of the reward group.

"Relation Between Radar Detection and the Observer's Concept of a Target," by R.D. Baldwin, A.D. Wright, and D.J. Lehr, J. Appl. Psychol., vol. 48, no. 2, April 1964. II

An experiment tested the hypothesis that target detectability on a PPI radar display depends on observer's knowledge of the attributes defining a target. Equal numbers of observers were given either a brightness a form, or a combined brightness-form set during training. A fourth group was given only demonstration training. The criterion test involved detection of two target sizes in two levels of visual noise for three target speeds. Analysis of variance revealed an interaction between set and noise level, confirming the hypothesis for the high noise level only.

Radar Target Detection as Influenced by Experience and Training, Research Memorandum by A.D. Wright, Edward W. Frederickson, and James L. Claflin, October 1964. V

AD-455 767

"Radar Target Detection as a Function of Search Area and Viewing Distance," by A.D. Wright, E.W. Frederickson, and J.L. Claflin, J. Appl. Psychol., vol. 49, no. 4, August 1965. V

The detection task employed a 9 1/4-inch Plan Position Indicator (PPI) and simulated targets. Thirty Army trainees served as subjects. Each subject performed the nine combinations of viewing distance—6, 12, and 18 inches—and of search area—whole scope, 1/4 scope, and 11/16-inch-diameter circle within the whole scope. A treatments x treatments x subjects analysis of variance indicated significant main and interaction effects: (a) As viewing distance increases, detection performance is degraded; (b) as search area increases, detection performance is degraded; (c) optimum viewing distance when searching the whole scope is approximately 12 inches, while optimum viewing distance for a small area (11/16-inch diameter) within a larger area is 6 inches or less.

"Risk-Taking Set and Target Detection Performance," by Gary W. Evans, J. Appl. Psychol., vol. 49, no. 4, August 1965.

An experiment tested the hypothesis that an observer's risk-taking set is related to his target detection performance on a radar display. Subjects were given an equal number of trials under neutral, risky, and cautious sets, where differential sets were produced by instructions. As hypothesized, when instructed to adopt a risky set, subjects made earlier detections of targets and had a higher false positive

VIGIL (Cont.)

Sub-Unit

identification rate than the same subjects when instructed to adopt a cautious set. These findings support the contention that radar detection performance can be regarded as a decision task.

Sources of Variability in Missile Unit Evaluations, Technical Report 66-13, by Robert D. Baldwin and Harry E. Anderson, June 1966.

AD-636 776

The unit proficiency scores obtained during Missile Annual Service Practice firings during 1958 were analyzed. The objectives of the analyses were to identify the major factors affecting unit proficiency scores and to identify systematic sources of variance in the scores obtained. The analyses indicated (a) essentially no correlation existed between the Crew Performance and Firing Result Scores obtained, (b) differences in the total ASP Scores were primarily dependent upon differences in Firing Result Scores, and (c) differences in Firing Result Scores obtained were distributed in accordance with a random model.

Research By-Products resulting from this research effort are listed in Part III.

VISION—Division No. 2 (Armor)

Sub-Unit

Evaluation of an Experimental Armed Forces Vision Tester

Evaluation of an Experimental Armed Forces Vision Tester, Information Report by Howard C. Olson, February 1954.

AD-488 589L

VOLAIR—Motivation, Morale, and Leadership Division

A Study of the Comparison of Basic Trainees (Non-Airborne Volunteers) and Airborne Volunteers on Demographic, Attitude, and Personality Characteristics

A Study of Airborne Volunteers: I. A Comparison Between Volunteers for The Airborne and Other Basic Trainees (Non-Volunteers). II. A Comparison Between Volunteers Who Successfully Complete Airborne Training and Those Who Fail, Staff Memorandum, February 1954.

AD-487 399

Exploration for Guttman Scales in a Study of Airborne Volunteers, Staff Memorandum by Rita O. Hausknecht, Robert Dressel, and Janet Heilmann, September 1954.

AD-487 398

WHOLEPART—Division No. 2 (Armor)

Sub-Unit

A Comparison of the Whole and Part Methods of Marksmanship Training

Accuracy of M1 Rifle Scores Obtained on the Known-Distance Range, Research Memorandum 4, by F.J. McGuigan and Victor H. Denenberg, January 1954. AD-24 500

A comparison between scores as recorded in the pits and on the firing line disclosed discrepancies such that the firing line scores could not be used for research purposes; also, pit scores on the known-distance range indicated that marksmanship proficiency was considerably lower than that called for by Army standards.

"A Comparison Between the Whole Method and the Part Method in the Acquisition of a Complex Perceptual-Motor Skill, Rifle Marksmanship," by F.J. McGuigan and E.F. MacCaslin, paper read at meeting of MPA, 1954.

A Comparison of Whole Versus Part Methods of Marksmanship Training, Staff Memorandum by F.J. McGuigan and Eugene F. MacCaslin, May 1954. AD-477 646L

"The Relationship Between Rifle Steadiness and Rifle Marksmanship and the Effect of Rifle Training on Rifle Steadiness," by F.J. McGuigan and E.F. MacCaslin, paper read at meeting of APA, 1954; J. Appl. Psychol., vol. 39, no. 3, June 1955.

The aims of the present study were (a) to estimate the reliability of an ataxiameter test of rifle steadiness, (b) to estimate the relationship between rifle steadiness and rifle marksmanship, and (c) to determine the effect of rifle training on rifle steadiness. The study was replicated twice, each time at a different military installation, once with 148 subjects, once with 200 subjects. Target scores were used as Criterion data. This study agrees with previous studies in finding the rifle ataxiameter test to be a reliable instrument. It fails, however, to find as high a relationship (.72; .61) between steadiness and marksmanship as the other studies reported. The present study finds the relationship between rifle steadiness and rifle marksmanship to be about -.24 for slow fire, and generally insignificant (although consistent in sign) for sustained (rapid) fire (the coefficient is negative because the test actually measures unsteadiness). No evidence is found that rifle training affects rifle steadiness.

"Whole and Part Methods in Learning a Perceptual Motor Skill," by F.J. McGuigan and Eugene F. MacCaslin, Amer. J. Psychol., vol. 68, 1955.

"The Prediction of Rifle Marksmanship," by E.F. MacCaslin and F.J. McGuigan, J. Appl. Psychol., vol. 40, no. 5, October 1956.

This study obtained multiple correlations showing the relationship between seven pretraining variables (rifle steadiness, firing experience, educational level, two measures of intelligence, mechanical aptitude, and mechanical information) and end-of-training marksmanship. It was found that two of the variables, intelligence and firing experience, predicted end-of-training marksmanship substantially as well as all seven variables taken together. It was also found that higher predictability was obtained by using the whole method than by using a part method. The average two-variable responses for the whole method were .61 for slow fire and .67 for sustained (rapid) fire; for the part method, .38 for slow fire and .32 for sustained fire.

Research By-Products resulting from this research effort are listed in Part III.

WIGWAG—Motivation, Morale, and Leadership Division
Survey of a Technical Training School

Sub-Unit

Changes in Student Motivation at an Army Technical Training School, Technical Report 24,
by Janet C. Heilmann, Hobart G. Osburn, and Rita O. Hausknecht, December 1955. AD-53 800

II

This research was conducted in 1954 to determine the differences in motivation and morale of students at the Signal School, and the differences in their reactions to certain aspects of training, since a survey conducted in 1952. In spite of instructional changes made on the basis of the earlier study, end-of-course proficiency test scores had declined. Among the findings of the second survey were these: The educational qualifications of the students had increased; fewer of the 1954 students were motivated to receive Signal School training; the motivation of the students was related to their proficiency scores. Compared with other background groups studied, noncollege men with previous technical experience were most highly motivated for Army technical training and college men with no technical experience had the lowest motivation.

YUCCA—Motivation, Morale, and Leadership Division

Reactions of Troops at an Atomic Maneuver: (a) Study of Palmar Sweating;
(b) Information and Attitudes of Troops at DESERT ROCK V¹

Relation Between Information Gain and Attitude Change: A Study of Participants in Exercise DESERT ROCK V [Information Report, November 1953].

An Investigation of Two Measures of Palmar Sweat Under Field Conditions, Staff Memorandum by Noel Paradise, May 1955.

AD-488 897L

¹Related research is reported under DESERT ROCK V.

BLANK PAGE

EXPLORATORY STUDIES

Exploratory Study 2—Division No. 7 (Language and Area Training)¹ Military Assistance Program

Advisor and Counterpart Activities in the Military Assistance Program in the Republic of China, Technical Report 65-5, by Dean K. Froehlich and Malcolm S. Klores, June 1965. AD-478 352L

As part of an Exploratory Study to obtain information on human factors training problems in the Military Assistance Program, a questionnaire was sent to 115 advisors and 155 counterparts in one country (Republic of China), asking about the most important problems they have encountered, obstacles to solution of these problems, sources of information that led to action on the problems, and degree of satisfaction with progress. Questionnaires were returned by 77 advisors and 77 counterparts. Advisors reported that their most important problems were in the area of command responsibility, maintenance, and supply, and the commonest obstacle to solution of problems was the difference in values between themselves and their counterparts. Counterpart statements about problems and obstacles most often dealt with shortages of equipment and supplies. In general, advisors indicated more satisfaction than dissatisfaction with their progress. Counterparts expressed slightly more satisfaction with progress than advisors did. Personal observation constituted the primary source of information leading advisors to attempt changes, while counterparts were influenced in this respect by their advisors and their superior officers.

C

Exploratory Study 12—Division No. 2 (Armor)² Tactical Command Decision Making

"The Effects of Supervisory Threat on Decision Making and Risk Taking in a Simulated Combat Game," by Robert A. Baker, J. Roger Ware, G.H. Spires, and W.C. Osborn, *Behavioral Sci.*, vol. 11, no. 3, May 1966.

Exploratory Study 20—Division No. 1 (System Operations) Driver Training

Current Approaches to Driver Safety Training, by A. James McKnight and Richard D. Behringer, paper read at mid-year meeting of the Society of Automotive Engineers, Chicago, May 1965.

An Experimental Evaluation of a Driver Simulator for Safety Training, Technical Report 66-9, by A. James McKnight and Harold G. Hunter, June 1966. AD-636 166

The purpose of this research was to determine the effectiveness of automobile simulators in fostering the safe operation of automobiles. A 20-hour driver improvement course was administered to 238 licensed drivers at Fort Lewis, Washington. Approximately half of the trainees received a program taught entirely by conventional methods, while the other half

¹Work Unit MAP was initiated as a result of ES-2.

²Basic Research Study 12 was initiated as a result of ES-12.

Exploratory Study 20 (Cont.)

received a program of similar content but including eight hours of simulator instruction. Results of specially constructed tests indicated that simulators were superior to conventional media for developing good driving habits but were no more effective in teaching driving knowledges or influencing driver attitudes. It was concluded that, while simulation represents a potentially valuable means of improving driver habits and skills, substantial modification of current simulator equipment and film is needed to attain this potential.

Exploratory Study 24—Division No. 2 (Armor)¹ Extended Operations

Summary of Literature Review on Extended Operations, Consulting Report by Dennis Cannon, Eugene Drucker, and Theodore Kessler, December 1964.

This report comprises a summary of a review of psychological literature pertaining to performance for extended periods of time. The material is organized into the following topics, as they relate to performance: sleep loss, temperature, nutrition, prolonged performance, drugs, stress, vibration, confinement, rest and personnel replacements, noise, radiation, and clothing. In addition, a brief summary of vigilance literature is included. The inconclusive nature of the reviewed research precludes supporting or denying the thesis that troops can be expected to remain effective for 48 hours or longer. Endurance limits may vary significantly from one task to another.

Exploratory Study 30—Division No. 4 (Infantry)² Tactical Communication

"Tactical Communication," by Ronald L. Brown, paper read at meeting of the Georgia Psychological Association, Jekyll Island, Ga., February 1965.

"Effects of Intense Noise on Processing of Cutaneous Information of Varying Complexity," by R.L. Brown, W.D. Galloway, and K.R. Gildersleeve, Percept. Mot. Skills, vol. 20, no. 3, Part 1, June 1965.

Thirty-six enlisted men identified a series of electropulse messages under varying auditory noise conditions. Three levels of message complexity were combined factorially with intermittent noise, continuous noise, and no-noise conditions. Subjects in Simple message groups were asked to indicate on each trial which one of five electrode locations was stimulated. Compound message groups identified both location of stimulation (one of five loci) and pulse duration (.2, 1.6, or 2.5 sec.). Finally, subjects in Complex message groups received electropulses at one of five loci, one of three durations, and one of two intensities (1.0 or 1.3 v d. c.). The amount of information transmitted (I_t) under differing noise conditions did not differ significantly. I_t did increase significantly with an increased number of coded elements. However, discrimination accuracy was not affected by the increased code difficulty. It was concluded that intense auditory noise has little effect upon the reception and processing of cutaneously presented information.

¹Work Unit ENDURE was initiated as a result of ES-24.

²Work Unit COMTAC was initiated as a result of ES-30.

Exploratory Study 30 (Cont.)

"Effects of Time-Sharing and Body Positional Demands on Cutaneous Information Processing," by R.L. Brown, W.D. Galloway, and R.A. San Giuliano, *Percept. Mot. Skills*, vol. 20, no. 3, Part 2, June 1965.

Twelve subjects were asked to interpret a series of coded electrocutaneous pulses while engaged in a visual discrimination task of varying complexity. All subjects performed both tasks in each of four body positions (standing, sitting, kneeling, and prone). Subjects were asked to indicate on each trial which one of four electrode locations was stimulated and whether duration of stimulation was .6 or 1.6 sec. A constant intensity of 1.5 v at 60 cps was employed. Three levels of complexity (no visual stimuli, 4 x 4 metric figures, and 8 x 8 metric figures) were employed in the visual task. In the cutaneous task, analysis of information transmitted, location errors, duration errors, and total errors indicate that time-sharing demand significantly impaired performance, whereas variation in body position had negligible effect.

Exploratory Study 43--Division No. 1 (System Operations)

(Ongoing)

Alternate Combinations of Necessary Elements of Effective Training

"The Formulation of Training Problems," by Harold G. Hunter, paper read at 17th Military Operations Research Symposium (Human Factors Working Group), U.S. Naval Post Graduate School, Monterey, Calif., May 1966.

Exploratory Study 44--Division No. 5 (Air Defense)¹

Training Methods for Forward Area Air Defense Weapons

"Factors Influencing the Visual Detection and Recognition of Low-Altitude Aircraft," by A.D. Wright, paper read at meeting of SWPA, 1966.

This paper is based upon an analysis of the major independent variables in an extensive study of man's ability to visually detect, recognize, and estimate range to low-altitude aircraft. A significant interaction ($p < .001$) of the binoculars x offset x aircraft class variables occurred over the detection and recognition responses. The differential effect of binoculars and offset when detecting jet and propeller targets was attributed to changes in early warning accuracy and the visibility of the jet aircraft exhaust smoke train interacting with the binocular, offset, and aircraft class variables.

¹Work Unit SKYFIRE was initiated as a result of ES-44.

BLANK PAGE

BASIC RESEARCH STUDIES¹

Basic Research 1-Director's Office An Analysis of Army Training

A Systematic Analysis of Army Training Requirements as the Basis of More Generalized Training Research, Research Report 7, by Francis E. Jones, May 1961. AD-259 476

The training requirements of 519 Army jobs contained in *The HumRRO Training Analysis Directory* were reduced to the more elementary components of "subject matter," "subject-matter modifiers," and "proficiencies involved." Next, "basic ideas," representing potential generalized training areas, were derived by a process of determining the systemic generality of various subcomponents of the training requirements. Finally, from a single idea, TECHNIQUES/PROCEDURES/METHODS, a model was constructed to illustrate the actions and interactions of various factors within the performer as they affect his performance of a given task for which he is trained. Practical examples of the application of the TPM analysis to command decisions were given.

Research By-Products resulting from this research effort are listed in Part III.

Basic Research 6-Division No. 3 (Recruit Training)² Integrating and Systematizing the Findings of Military Psychotechnology

"Summary of Research in Sensory Deprivation and Social Isolation," by Howard H. McFann, paper read at NATO Symposium on Defense Psychology, Soesterberg, The Netherlands, August 1961.

Tabular results of questionnaire content areas, and experimental/control responses on a subjective stress scale, an intellectual efficiency test battery, a visual task performance, and reported visual sensations measured are presented.

Experimental Assessment of a Limited Sensory and Social Environment: Summary Results of the HumRRO Program, Research Memorandum by Thomas I. Myers, Donald B. Murphy, Seward Smith, and Charles Windle, February 1962; Symposium presented at meeting of APA, 1961.

Material is presented from experiments designed to appraise the potency of a limited sensory and social environment. Soldier volunteers were confined for four days in dark, quiet cubicles which were as physically comfortable as possible. Sensory and social experiences of the control group were normal. The experimental subject evidenced feelings of stress, boredom, restlessness, anger, worry, disorientation, and vague physical symptoms that were only rarely reported by his control counterpart. Evidence of intellectual inefficiency in the cubicle environment (as compared to the control condition) was obtained from tests given during isolation and from retrospective evaluations.

"Reported Visual Sensation During Brief Exposure to Reduced Sensory Input," by Thomas I. Myers and Donald B. Murphy, Chapter 10 in APA-AAAS Symposium, *Hallucinations*, Louis Jolyon West, M.D. (ed.), Grune & Stratton, New York, 1962.

Exploratory studies into the occurrence of hallucinatory phenomena were conducted under "dark cell" conditions. A total of 15 subjects experienced limited sensory environment,

¹Basic Research Studies 1-10 originated as research efforts under Work Unit PIONEER. For convenience, all reporting on these Sub-Units is presented here rather than under PIONEER.

²Research begun as Work Unit ENDORSE was continued as PIONEER VI, then as BR-6. The earlier reports are listed under Work Unit ENDORSE.

Basic Research 6 (Cont.)

some for as long as four days. The results of the studies indicated that when non-psychiatric subjects are isolated in the dark for 10 minutes, they report "seeing" a variety of visual sensations. It was found that attitudes or "sets" resulting from the instructions given a subject can affect both the number and complexity of reported visual sensations under conditions of minimal sensory deprivation.

Collected Papers Related to the Study of the Effects of Sensory Deprivation and Social Isolation, Research Memorandum by Staff, February 1962. AD-478 300

"A Preliminary Study of the Effects of Controlled Isolation," by Thomas I. Myers, Lyman M. Forbes, Jack Arbit, and Jack Hicks.

"The Reliability of a Modified Digit Span Procedure," by Thomas I. Myers, Gerald Burday, Lyman M. Forbes, and Jack A. Arbit.

"Visual Sensations Experienced in the Dark as a Function of Instruction and Prior Verbalization," by Donald B. Murphy, Edward J. Kandel, and Thomas I. Myers.

"Some Basic Factors in Sensory Deprivation Research," by Thomas I. Myers.

"Reported Visual Sensations During Brief Exposure to Reduced Sensory Input," by Thomas I. Myers and Donald B. Murphy.

"A Technique for Studying Attitude Change," by Donald B. Murphy and George L. Hampton.

"A Simple Tracking Apparatus for Classroom or Experimentation," by Seward Smith and Paul M. Haas.

"Selected References to Research in Sensory Deprivation," by Thomas I. Myers, Donald B. Murphy, and Seward Smith.

"Auditory Perception of Numerosity as Affected by Number and by Correct and Incorrect Knowledge of Results," by Richard A. Monty, *Human Factors*, August 1962.

"The Occurrence, Measurement and Experimental Manipulation of Visual 'Hallucinations'," by Donald B. Murphy and Thomas I. Myers, *Percept. Mot. Skills*, vol. 15, no. 1, August 1962.

"Activity Pattern and Restlessness During Sustained Sensory Deprivation," by Seward Smith, Thomas I. Myers, and Donald B. Murphy, paper read at meeting of APA, 1962.

"The Role of Expectancy in Ss' Responses to Sustained Sensory Deprivation," by Thomas I. Myers, Donald B. Murphy, and Donald F. Terry, paper read at meeting of APA, 1962.

"Time Estimation Error as a Predictor of Endurance in Sustained Sensory Deprivation," by Donald B. Murphy, George L. Hampton III, and Thomas I. Myers, paper read at meeting of APA, 1962.

"Conditioning of Connotative Meaning as a Function of Sensory Deprivation and Social Isolation," by Donald B. Murphy, Seward Smith, and Thomas I. Myers, paper read at meeting of APA, 1963.

"The Effect of Sensory Deprivation and Social Isolation on Conformity to a Group Norm," by Seward Smith, Donald B. Murphy, and Thomas I. Myers, paper read at meeting of APA, 1963.

"The Effect of Sensory Deprivation and Social Isolation on Self-Exposure to Propaganda and Attitude Change," by Thomas I. Myers, Donald B. Murphy, and Seward Smith, paper read at meeting of APA, 1963.

"Laboratory Studies of Sensory Deprivation: Findings of Interest to Human Engineering," by Thomas I. Myers, Donald B. Murphy, and Seward Smith, paper read at 7th Annual Meeting, Human Factors Society, Palo Alto, Calif., October 1963.

Conformity to a Group Norm as a Function of Sensory Deprivation and Social Isolation, Research Memorandum by Seward Smith, Thomas I. Myers, and Donald B. Murphy, November 1963. AD-439 430

Reported Visual Sensations as a Function of Sustained Sensory Deprivation and Social Isolation, Research Memorandum by Donald B. Murphy, Thomas I. Myers, and Seward Smith, November 1963. AD-439 431

Basic Research 6 (Cont.)

Vigilance as a Function of Sensory Deprivation and Social Isolation, Research Memorandum by Thomas I. Myers, Seward Smith, and Donald B. Murphy, [November 1963]. AD-639 432

"Group Consensus and Judgmental Accuracy: Extension of the Asch Effect," by Jack M. Hicks, Richard A. Monty, and Thomas I. Myers, *Psychonomic Sci.*, vol. 5, no. 4, 1966.

This study demonstrated the generality of the Asch group influence effect to a new task employing auditory rather than visual stimuli, a situation in which the bogus group was not physically present, and a subject population of U.S. Army enlisted personnel.

Experimental Studies of Sensory Deprivation and Social Isolation, Technical Report 66-8, by Thomas I. Myers, Donald B. Murphy, Seward Smith, and S. James Goffard, June 1966. AD-636 478

To evaluate experimentally some of the psychological effects of sensory deprivation and social isolation, 176 randomly selected volunteers were placed in dark, soundproofed cubicles for four days, while an equal number of other randomly selected volunteers followed a normal routine. Psychological tests and measures were given both Cubicle and Control subjects before, during, and after isolation. Cubicle subjects reported the isolation experience to be unpleasant, boring, and stressful. One-third of them requested early release from the cubicles. In comparison with the Control subjects, Cubicle subjects were better on simple intellectual tasks and on auditory vigilance. They were worse on more complex intellectual tasks, and under some conditions, appeared to be more susceptible to influence. They more often sought meaningful stimulation but also showed some tendency to avoid stimulation. Sensory deprivation and social isolation do have psychological effects, but they are neither simple nor clear-cut.

Basic Research 7--Division No. 5 (Air Defense)

(Ongoing)

Textual Material

An Overview of the Conceptual Structure of Subtask PIONEER VII, Research Memorandum by Joseph F. Follettie, July 1963. AD-628 815

"Elements of a Methodology for Prose-Learning Research," by Joseph F. Follettie, paper read at meeting of RMPA, 1966.

List-learning and prose-learning methodologies are compared and contrasted regarding their enumerative units, trial defining conditions, performance measures, and proficiency criteria. Problems underlying the assessment of prose-learning performance when using a comprehension criterion are touched upon. Preliminary findings are presented which suggest that data based upon a comprehension criterion may be predicted from data based upon a memorization criterion.

Basic Research 8--Division No. 2 (Armor)

(Ongoing)

Training Taxonomy

The Feasibility of Developing a Task Classification Structure for Ordering Training Principles and Training Content, Research Memorandum by Donald F. Haggard, January 1963. AD-628 162

Basic Research 9—Division No. 2 (Armor)
Shaping of Skills

"The Effects of DRL and DRH Schedules of Reinforcement in Shaping the Collective Response Rate of Two- and Three-Man Teams," by Peter C. Wolff, David D. Burnstein, and L. Dennis Cannon, paper read at meeting of APA, 1962.

"The Use of Schedules of Reinforcement to Regulate a Collective Team Response Rate," by Peter C. Wolff, David D. Burnstein, and L. Dennis Cannon, *Psychol. Rec.*, vol. 14, no. 1, January 1964.

"Shaping of Three-Man Teams on a Multiple DRL-DRH Schedule Using Collective Reinforcement," by D.D. Burnstein and P.C. Wolff, *J. Exp. Anal. Behav.*, vol. VII, no. 2, March 1964.

Pursuit Rotor Performance: 1. Effects of Reinforcing the Longer Intervals of Continuous Tracking Within Each Trial, Technical Report 66-11, by Richard W. Sheldon and John F. Bjorklund, June 1966.

To determine whether selective reinforcement of pursuit rotor performance facilitates acquisition of skill and promotes its retention, five groups of subjects were individually trained for ten sessions of 15 trials each. Selective reinforcement of longer than average target contacts was introduced for one group of subjects during Sessions 6 and 7 and for another during Sessions 4 to 7. Continuous reinforcement of target contacts was introduced for two other groups. A control group received no reinforcement. Dependable improvements in time-on-target scores were obtained for all experimental groups except the one which was selectively reinforced for four sessions, but the superior performances were not maintained when reinforcement was withdrawn. The results suggest that this improvement as a function of feedback was attributable to motivational rather than learning or informational effects.

Basic Research 10—Division No. 3 (Recruit Training)
Nonverbal and Extraverbal Communication in Groups

"Effect of Knowledge of Test Results on Subsequent Test Performance as a Joint Function of Need Achievement and Test Anxiety," by Mitchell M. Berkun and Harry A. Burdick, paper read at meeting of APA, 1963.

Approximately 400 men from two randomly selected Army basic training companies were given Sarason's scale of Test Anxiety, a preliminary Coins Test, a Creative Imagination test (after McClelland) to get a measure of n-Ach, and a second Coins Test containing new problems. Subjects were given contrived positive and negative feedback regarding their performance on the first Coins Test. Following the second Coins Test, the subjects were given an opinion and attitude questionnaire. Among the low n-Ach subjects, a specific response was found to the truth or falsity of the contrived feedback information, implying that these people apparently detected the truth or falsity of the report concerning their first Coins Test performance.

Need Aggression Measurement, Research Memorandum by Harry A. Burdick and Hiroshi Ono, October 1963.

AD-638 307

This report presents a manual of instructions which was developed for scoring TAT stories for aggression imagery (n-Agg), and describes an experiment in which the manual was used on scoring stories written by subjects on six TAT pictures. The reliability of scoring with the manual was assessed during the experiment, an attempt was made to vary level of n-Agg by introducing unpleasant stimuli into the environment, and the relationship between

Basic Research 10 (Cont.)

the perception of parents and of punishment during childhood and the need for aggression was examined. Scores were found to be positively related to the introduction of mild aversive stimuli into the environment and to the memory of early socialization experiences with punishment, to perception of parents, and to more generalized aggressive feelings.

"Effect of Preceding Rosenzweig's PF Test With the TAT," by Mitchell M. Berkun and Harry A. Burdick, *J. Clin. Psychol.*, vol. XX, no. 2, April 1964.

In a study in which moderately frustrated groups were given a series of measures of hostility or aggression, half of the 162 Army basic trainee subjects took Rosenzweig's Picture Frustration test just before taking an abbreviated modification of the TAT, and half just after the TAT. Experimental and control treatments were equally represented in both subgroups. The n-Agg score means were the same for both groups, indicating no effect of prior intrusion of the PF. On the other hand, the group whose PF immediately followed the TAT had a significantly higher extrapunitive and significantly lower intropunitive mean score than the group whose PF came first. The PF failed to discriminate among the different levels of induced hostility. Intelligence level appeared to have no demonstrable effect. It was concluded that pre-PF administration of the TAT significantly increased the repertoire of extrapunitive aggressive responses available to the subject.

"Four Motive Measures," by Harry A. Burdick and Joan S. Nettler, paper read at meeting of APA, 1964.

From scoring 1308 stories written by young male recruits coming into the U.S. Army (on six Atkinson pictures and six TAT cards), some internal consistency aspects of needs for achievement, affiliation, power, and aggression were studied. Those pictures of cards which "pulled" the greatest number of negative points on each dimension are reported. A strong negative relationship between F scale scores and n-Ach was also found.

Basic Research 11—Division No. 5 (Air Defense) Programed Instruction

Measures of Ability and Programed Instruction Performance, Technical Report 65-12, by William H. Melching, December 1965. AD-628 443

The results of several programed instruction studies recently accomplished by HumRRO Division No. 5 (Air Defense) at Fort Bliss were compared with regard to the relationship between measures of ability and measures of programed instruction performance. Although there were some exceptions, each ability measure tended to be substantially related to each measure of program-test performance. The contention that programed instruction eliminates achievement differences due to intellectual ability was not substantiated.

The Influence of Practice Frames and Verbal Ability on Programed Instruction Performance, Technical Report 66-1, by William H. Melching and Frank B. Nelson, January 1966. AD-628 444

The effect of special practice frames upon programed instruction performance was examined using a program in Counterinsurgency. The individuals who served as subjects represented two levels of verbal ability. Practice frames enabled subjects to proceed through the program at a faster rate per frame, make fewer program errors, and score higher on a recall type of achievement test. Subjects of higher verbal ability were able to proceed through the program at a faster rate, make fewer program errors, and exhibit higher scores on all measures of achievement.

TECHNICAL ADVISORY SERVICE

An Analysis of the REDEYE System With Some Suggestions for Training (U), Research Memorandum by W.L. Williams, Jr., R.R. Ridenour, D. Cooper, and T.S. Luce, December 1961 (CONFIDENTIAL). (Div. 5)

A Study of Mathematical Skills Requirements for Basic Electronics in the U.S. Army Air Defense School, Consulting Report by John A. Cox and Richard C. Montgomery, October 1964. (Div. 5)

AD-628 701

"Human Factors in Tactical Nuclear Combat," by Robert Vineberg, presentation for members of the General Staff of the Department of the Army, Washington, January 1965. (Dir. Off.)

Human Factors in Tactical Nuclear Combat, Technical Report 65-2, by Robert Vineberg April 1965. (Dir. Off.)

AD-463 787

The general objectives of this study are to gather information that may provide bases for predicting human behavior in nuclear warfare, to analyze this information for implications concerning possible preparation for such warfare, and to develop a means for estimating the psychological casualties that are likely to occur on the nuclear battlefield. Part I is a description and analysis of man's response to extreme stress, based on a review of relevant literature. Part II is a description of a method developed for estimating the extent of psychological casualties to be expected in tactical nuclear combat. It is concluded that man can, in general, cope with the severest forms of stress in civilian and military life. Nevertheless, because the greater and continuing stresses of nuclear combat may increase neuropsychiatric casualties, implications are that special training, given simultaneously with his training in specific skills and knowledges, would prepare the soldier to fight and survive in a nuclear environment.

The Application and Test of the FORECAST Concept of Electronics Maintenance on Navy LORAN Equipment, Technical Report 65-3, by Edgar L. Shriver and Robert C. Trexler, May 1965. (Div. 1)

AD-616 753

This report describes the Technical Advisory Service rendered to the Navy in connection with Work Unit FORECAST concept of electronics maintenance. This concept is presented as a collection of policies, methods, techniques, and services integrated in a plan for improved level of electronics maintenance in the services. Special reference is made to the application of the FORECAST concept to the Navy LORAN system and to the resulting products and level of performance achieved. In implementing FORECAST procedures, Navy chief petty officers, working with FORECAST scientists, produced a technical manual and training program, using an especially designed device and programed instruction. The same tests in identifying malfunctions in LORAN systems were given to 86 Navy electronics technicians, FORECAST trained, and to 12 graduates of a conventional Navy course. FORECAST students identified 39% of the bad parts; conventionally trained students, 13%.

E

GENERAL

(Items Not Directly Related to Specific Elements in the Work Program)¹

HumRRO Publications

1952-1955

Psychological Warfare Research: A Long Range Program—Part One, Essential Background Information, Special Report 2, March 1953 (CONFIDENTIAL). (Psywar) AD-2 314

Background information bearing on planning of long-range psywar research is discussed. (U)

Analysis of Variance Designs With Disproportionate Subclass Numbers, Staff Memorandum by Victor H. Denenberg, August 1953. (Div. 2)

A Study of Groups: A Review of the Literature, Staff Memorandum by Richard Blum, August 1953. (Div. 3)

A review of the evolution of and methodology in group research, including group dimensions, leadership, morale, inter-group relations, types of groups, group membership and individual stress reactions, and foreign military applications of group techniques. A bibliography of 785 references is included.

What HumRRO Is Doing, Research Bulletin 1, March 1954. (Dir. Off.)

AD-28 659

What HumRRO Is Doing, Research Bulletin 2, March 1955 (with supplement, April 1955). (Dir. Off.)

AD-62 216

A Survey of the Basic Airborne Training Course at Fort Benning, Georgia, Special Report 4, by Charles Windle, April 1955. (Div. 4) AD-63 872

A survey of the basic Airborne training course revealed that those who completed the course successfully were well trained for parachuting into combat with minimum likelihood of injury. The report offers suggestions, based on the findings of the survey, for changes in present selection and training methods which should tend to reduce attrition during training.

A Survey on Morale and Leadership as Affected by the ATFA-1 Armored Division, Staff Memorandum by Boyd L. Mathers, September 1955. (Div. 2) AD-682 182L

1956-1960

What HumRRO Is Doing, 1955, Research Bulletin 3, April 1956. (Dir. Off.)

AD-94 294

Annotated Bibliography of Research Studies in Aviation Mechanical Maintenance Training, Staff Memorandum by Robert T. Root, March 1957. (Div. 1)

An Annotated Bibliography of Research on Training Aids and Training Devices, Staff Memorandum by Robert T. Root, August 1957. (Div. 1) AD-487 518

What HumRRO Is Doing, January 1956-June 1957, Research Bulletin 4, December 1957. (Dir. Off.)

AD-158 174

The Conduct of Field Studies, Staff Memorandum by Ralph H. Kolstoe, March 1958. (Div. 1)

AD-487 528

¹Items in this section either are not directly related to specific elements of the Work Program, or are related to several elements.

General-HumRRO Publications (Cont.)

What HumRRO Is Doing, July 1957-June 1958, Research Bulletin 5, December 1958. (Dir. Off.)
AD-207 291

HumRRO Presentations to Third Meeting of NIKE ZEUS Training Panel, Ordnance Guided Missile School, Redstone Arsenal--(1) "Introduction and Overview," by T.R. Vallance, (2) "What Is an Adequate Task and Skill Analysis?" by Robert G. Smith, Jr., (3) "Some Comments on Content and Methods Based on Electronic Systems Training Research," by William A. McClelland--Research Bulletin 6, November 1959. (Dir. Off.)
AD-628 960

What HumRRO Is Doing, July 1958-June 1959, Research Bulletin 7, April 1960. (Dir. Off.)
AD-236 771

Scales and Standards for Military Training Research, Research Memorandum by Robert G. Smith, Jr., May 1960. (Div. 5)

1961

What HumRRO Is Doing, Research Bulletin 8, August 1961. (Dir. Off.)
AD-262 127

Leadership at Higher Levels of Command as Viewed by Senior and Experienced Combat Commanders, Research Memorandum by MG Edmund B. Sebree, USA Ret., December 1961 (For Official Use Only). (Div. 3)
AD-478 740L

This special research project was established for exploration of (a) the respects in which higher-level leadership varies from leadership below division level; (b) the knowledge of psychology or sociology required by higher commanders; (c) the importance of traits of the leader in the exercise of high-level leadership; and (d) the impact of the group being led, and of the situation, upon the exercise of high-level leadership. This paper is a compilation of information on these topics obtained from personal letters to 100 senior and experienced combat officers and supplemented by other source material such as official records and military biographies. The text also includes profiles of six leaders successful at high levels of command. The diversity in personality and techniques characterizing successful leaders facing various command problems is illustrated. (U)

1962

What HumRRO Is Doing, Research Bulletin 9, September 1962. (Dir. Off.)
AD-284 961

1964

An Annotated Bibliography on Proficiency Measurement for Training Quality Control, Research Memorandum by Robert G. Smith, Jr., June 1964. (Dir. Off.)
AD-613 522

This annotated bibliography is a comprehensive list of literature available in the field of proficiency measurement for training quality control.

An Annotated Bibliography on the Determination of Training Objectives, Research Memorandum by Robert G. Smith, Jr., June 1964. (Dir. Off.)
AD-448 363

This annotated bibliography supplements Research Bulletin 11 by listing further literature available on developing training objectives.

The Development of Training Objectives, Research Bulletin 11, by Robert G. Smith, Jr., June 1964. (Dir. Off.)
AD-448 364

This Research Bulletin is the first of several publications designed to present general accounts of the technology for developing training. It describes modern concepts and

techniques used in determining training objectives, selected as being practical for Army training personnel. An annotated bibliography of literature available in the field is separately bound.

1965

Controlling the Quality of Training, Technical Report 65-6, b; Robert G. Smith, Jr., June 1965. (Dir. Off.)

AD-618 737

The need for a quality control system in a military training program and methods of establishing such a unit are described and evaluated in this report, which is part of a research project in the technology for developing training. It is stated that the purpose of quality control is to ensure a satisfactory standard of competence among the students who graduate, to maintain this quality by a continuous monitoring process, and to improve training where it is found to be deficient. In order to function successfully, a quality control system should constitute a separate unit, independent of but cooperating with the instructional departments. Attention is given to proficiency testing as the chief means of measuring the success of the training program, with emphasis upon the importance of a uniform standard and consistent method in the preparation, administration, and scoring of tests.

Short-Term Memory: An Annotated Bibliography, Technical Report 65-13, by Donald Reynolds and Richard D. Rosenblatt, December 1965. (Div. 1)

AD-627 394

The bibliography is divided into 12 areas as follows: (1) Information Theory; (2) Proactive and Retroactive Interference and Interpolated Activities; (3) Set, Subject-Strategies, and Coding Techniques; (4) Paired-Associate Studies; (5) Simultaneous Listening and Memory Span Studies; (6) Rate and Mode of Stimulus Presentation; (7) Rate and Order of Recall, and Serial and Sequential Tasks; (8) Methods, Theory, and Review Articles; (9) Meaningfulness, Degree of Learning, and Stimulus Organization; (10) Age Differences; (11) Comparisons of Short-Term Memory and Long-Term Memory; and (12) Perceptual Studies. There are 170 articles annotated in the bibliography and extensive cross-indexing to facilitate location of articles. Although the earliest study included is dated 1910, the majority of articles found herein were published in the period from 1959 through 1964. Use of multiple presentation of stimuli, even if the material was "immediately recalled," was labeled "learning" rather than "memory" and was therefore excluded.

Professional and Military Publications

1952 - 1955

"A Method for Computing the Kendall Tau Coefficient," by Harold F. Bright, *Educ. Psychol. Measmt.*, vol. 14, 1954. (Dir. Off.)

"Some Notes on Cumulative Scales," by Ira H. Cisin, *J. Rural Sociol.*, vol. 20, 1955. (Dir. Off.)

"The Effect of Various Interview Techniques in Evoking Fear Responses," by Charles Windle, Howard McFann, and Joseph Ward, *J. Clin. Psychol.*, vol. XI, no. 2, April 1955. (Div. 4)

"A Comparison Between the Peace Time Psychiatric Casualty Rates of Parachutists and Non-Parachutists," by Charles Windle and MAJ Harold E. Parker, *J. Clin. Psychol.*, vol. XI, no. 4, October 1955. (Div. 4)

1956 - 1960

"Dig That Atomic Foxhole," by Henry E. Kelly, *Army*, June 1956. (Div. 4)

"Twice-Told Tales About One-Tailed Tests," by Mitchell M. Berkun, *Psychol. Newsltr.*, no. 9, 1957. (Div. 3)

This paper presents a methodological discussion of the use of a one-tailed test based on prediction of the outcome in a reported study of conformity.

"Factors in the Recovery From Approach-Avoidance Conflict," by Mitchell M. Berkun, *J. Exp. Psychol.*, vol. 54, no. 1, July 1957. (Div. 3)

"The Man-Rifle Weapon in Atomic War," by Howard Sarvis, *Guns*, December 1958. (Div. 4)

"Further Comment on Classical and Instrumental Conditioning," by Mitchell M. Berkun, *Canad. J. Psychol.*, vol. 13, no. 4, 1959. (Div. 3)

"Toward Better Armor Training Management," by Robert A. Baker, *Armor*, vol. LXVIII, no. 2, March-April 1959. (Div. 2)

"Focus on Man," by John L. Finan, *Army*, vol. 9, no. 12, July 1959. (Dir. Off.)

"The Science of Training Soldiers," by Meredith P. Crawford, with foreword by LTG Arthur G. Trudeau, *Army Info. Dig.*, vol. 14, no. 11, November 1959. (Dir. Off.)

"Gradients of Generalization in Secondary Reinforcement," by Bruce O. Bergum, *J. Exp. Psychol.*, vol. 59, no. 1, January 1960. (Div. 5)

"How Fast Can You Hit Him?" by Howard C. Sarvis, *Guns*, vol. 6, July 1960. (Div. 4)

"The Professional Soldier: A Social and Political Portrait," by Morris Janowitz," review by Meredith P. Crawford, *Armor*, vol. LXIX, no. 4, July-August 1960. (Dir. Off.)

1961

"Shop Talk and Technical Writing," by William T. Battrick, *STWP Rev.*, vol. 8, no. 1, January 1961. (Div. 2)

"COED - A Device for the Experimental Study of Man-Machine Systems," by R.H. Johnson, D.A. Gordon, B. Bergum, and W.E. Patterson, *J. Human Factors Soc.*, vol. 3, no. 1, March 1961. (Div. 5)

"Interrelationship of Three Measures of Motivation," by Harry A. Burdick, *Psychol. Rep.*, vol. 8, no. 2, April 1961. (Div. 3)

Chi square tests of need for achievement, need for affiliation, and need for power scores on six pictures for two independent groups, 215 college students and 201 recent members of the U.S. Army, indicated that these measures of motivation were statistically independent and might be combined in research.

"Double Tenth-Research: Human Resources," by Meredith P. Crawford, *The George Washington University Federalist*, vol. VIII, no. 2, Spring 1961.¹ (Dir. Off.)

"Let's Take a Look at HumRRO Activities" [by LTC A.H. Eliasson], *Army Aviation*, May 1961.² (Div. 6)

"Science and Army Training: What HumRRO Researchers Are Doing," by LTC Franklyn J. Michaelson, *Army*, vol. 11, no. 10, May 1961.³

"Effects of Intelligence on Signal Detection in Visual and Auditory Monitoring," by J. Roger Ware, *Percept. Mot. Skills*, vol. XIII, no. 1, August 1961. (Div. 2)

"Auditory Vigilance in Repeated Sessions," by J. Roger Ware, Raymond R. Sipowicz, and R.A. Baker, *Percept. Mot. Skills*, vol. XIII, no. 2, October 1961. (Div. 2)

"The Role of Expectancy in Auditory Vigilance," by Arthur Floyd, Jr., Gary D. Griggs, and Robert A. Baker, *Percept. Mot. Skills*, vol. XIII, no. 2, October 1961. (Div. 2)

"Effects of Intelligence on Vigilance: A Replication," by Raymond R. Sipowicz and Robert A. Baker, *Percept. Mot. Skills*, vol. XIII, no. 3, December 1961. (Div. 2)

"Effects of Practice on Visual Monitoring," by Robert A. Baker, Raymond R. Sipowicz, and J. Roger Ware, *Percept. Mot. Skills*, vol. XIII, no. 3, December 1961. (Div. 2)

"Let's Take a Look at Aviation Training Research," by LTC Arne H. Eliasson, *Army Aviation*, vol. 10, no. 12, December 1961.² (Div. 6)

1962

"Concepts of Training," by Meredith P. Crawford, in *Psychological Principles in System Development*, Robert M. Gagné (ed.), Holt, Rinehart, and Winston, New York, 1962. (Dir. Off.)

"The Systems Concept as a Principle of Methodological Decision," by John L. Finan, in *Psychological Principles in System Development*, Robert M. Gagné (ed.), Holt, Rinehart, and Winston, New York, 1962. (Dir. Off.)

"Identifying Training Needs and Translating Them Into Research Requirements," by Theodore R. Vallance and Meredith P. Crawford, Chapter 16 in *Training Research and Education*, Robert Glaser (ed.), University of Pittsburgh Press, Pittsburgh, January 1962. (Dir. Off.)

¹"Double Tenth" is a two-part article celebrating the tenth anniversary of HumRRO, and the tenth anniversary of the University's Navy Graduate Comptrollership Program.

²Colonel Eliasson was the Unit Chief of the U.S. Army Aviation Human Research Unit.

³Colonel Michaelson was Chief, Research Division, Individual Training Directorate, DCS Individual Training, USCONARC, Fort Monroe, Va.

General-Prof. & Mil. Publications (Cont.)

"Performance of Mental Deficients on a Simple Vigilance Task," by J. Roger Ware, Robert A. Baker, and Raymond R. Sipowicz, *Amer. J. Ment. Defic.*, vol. LXVI, no. 4, January 1962. (Div. 2)

"When It's Dark in the Daytime," by COL Henry E. Kelly [USA Ret.], *Army*, vol. 12, no. 6, January 1962. (Div. 4)

"Why Prone?" by COL Henry E. Kelly [USA Ret.], *Army*, vol. 12, no. 8, March 1962. (Div. 4)

"The Effects of Knowledge of Results (True and False) on Vigilance Performance," by Edward W. Weidenfeller, Robert A. Baker, and J. Roger Ware, *Percept. Mot. Skills*, vol. XIV, no. 2, April 1962. (Div. 2)

"Signal Detection by Multiple Monitors," by Robert A. Baker, J. Roger Ware, and Raymond R. Sipowicz, *Psychol. Rec.*, vol. 12, no. 2, April 1962. (Div. 2)

"Some Contributions of Training Research to the Personnel Systems Concept," by William A. McClelland, in *Tri-Service Conference on New Approaches to Personnel-Systems Research*, ONR Symposium Report ACR-76, Washington, May 1962. (Dir. Off.)

"The Effects of Reward and Knowledge of Results on the Performance of a Simple Vigilance Task," by Raymond R. Sipowicz, J. Roger Ware, and Robert A. Baker, *J. Exp. Psychol.*, vol. 64, no. 1, July 1962. (Div. 2)

"Sustained Vigilance I - Signal Detection During a 24-Hour Continuous Watch," by Robert A. Baker, J. Roger Ware, and Raymond R. Sipowicz, *Psychol. Rec.*, vol. 12, no. 3, July 1962. (Div. 2)

"Vigilance: A Comparison in Auditory, Visual, and Combined Audio-Visual Tasks," by Robert A. Baker, J. Roger Ware, and Raymond R. Sipowicz, *Canad. J. Psychol.*, vol. 16, no. 3, September 1962. (Div. 2)

1963

"The Guiding Assumptions of Liberal Arts Programming: A Psychologist's View," by Theodore R. Vallance, *J. Higher Educ.*, vol. XXXIII, no. 4, April 1963. (Dir. Off.)

"Vigilance Performance Under Conditions of Redundant and Nonredundant Signal Presentation," by William C. Osborn, Richard W. Sheldon, and Robert A. Baker, *J. Appl. Psychol.*, vol. 47, no. 2, April 1963. (Div. 2)

"Evaluation of Prospective Social Relationships: A Function of Comparison Level and Predicted Outcome Level," by Arthur L. Miller, *J. Abnorm. Soc. Psychol.*, vol. 67, no. 5, November 1963. (Div. 2)

1964

"Human Factors in Cold Weather Operation," by Wallace W. Prophet and Russel E. Schulz, *U.S. Army Aviation Dig.*, vol. 10, no. 1, January 1964. (Div. 6)

"Effect of Increasing Signal Load on Detection Performance of a Vigilance Task," by J. Roger Ware, Robert A. Baker, and Richard W. Sheldon, *Percept. Mot. Skills*, vol. 18, no. 1, February 1964. (Div. 2)

"The Role of Experimenter Attitude and Contingent Reinforcement in a Vigilance Task," by J. Roger Ware, Boyd Kowal, and Robert A. Baker, Jr., *Human Factors*, vol. 6, no. 1, February 1964. (Div. 2)

"Assembly (?) or Defensive (?) Areas," by COL Henry E. Kelly, USA Ret., *Infantry*, vol. 54, no. 2, March-April 1964. (Div. 4)

"Discipline," by MG E.B. Sebree [USA Ret.], *Army*, vol. 14, no. 10, May 1964. (Div. 3)

This article discusses the positive and negative aspects of discipline as interpreted by commanders in the U.S. Army in a variety of situations. It is proposed that the proof of real discipline is in achievement, that discipline is gained by motivation, and that discipline is manifested not by "spit and polish" but by a cheerful and intense desire to obey. It is further postulated that discipline is motivated by personal recognition and a sense of being fairly treated both by superiors and by the Army as an institution, and that the end product held together by discipline is that important characteristic of the commander-leadership.

"Vigilance: A Symposium," by Donald N. Buckner and James J. McGrath (eds.), review by Robert A. Baker, *Psychol. Rec.*, vol. 14, no. 3, July 1964. (Div. 2)

"A Military Career," by MG Edmund B. Sebree [USA Ret.], *Infantry*, vol. 54, no. 5, September-October 1964. (Div. 3)

This article examines the problem of junior Army officer attrition as related to motivation and morale.

"Effects of Method of Presentation, Modes and Response Category Knowledge of Results on Detection Performance in a Vigilance Task," by J. Roger Ware and Robert A. Baker, *J. Eng. Psychol.*, vol. 3, no. 4, October 1964. (Div. 2)

"Sustained Vigilance II: Signal Detection for Two-Man Teams During a 24-Hour Watch," by J. Roger Ware, Robert A. Baker, and Eugene Drucker, *J. Eng. Psychol.*, vol. 3, no. 4, October 1964. (Div. 2)

1965

"Disaster at Little Big Horn," by MG E.B. Sebree [USA Ret.], *Infantry*, vol. 55, no. 4, July-August 1965. (Div. 3)

This paper presents an example of the lack of communications, tactics, unity, and leadership that became the disaster at Little Big Horn.

"A Study of Backward Chaining," by John A. Cox and Lynn M. Boren, *J. Educ. Psychol.*, vol. 56, no. 5, October 1965. (Div. 5)

Thirty men were trained to perform a 72-action procedure on Nike Hercules equipment. Three different training techniques were used, 10 men being trained with each technique. First, the actions were organized into seven operant spans and taught in reverse chronological order. Second, the same operant spans were taught in chronological order. Third, the complete procedure was taught without grouping actions into operant spans. Each subject was required to learn the procedure to one perfect performance. The amount of training time was collected as the score for each subject. Comparisons were made between the mean training times for the three techniques. No differences larger than chance were found.

"Verbal Mediation in Reverse Association: The Role of Temporal Factors," by Richard A. Kulp and John A. Robinson, *Psychonomic Sci.*, vol. 3, no. 10, November 1965. (Div. 2)

A three stage reverse mediation paradigm, A-B, B-C, C-A, and its control paradigm A-B, D-C, C-A, was studied at two test list anticipation intervals to determine the effects of temporal factors on reverse mediation. Forty-eight subjects learned three word lists consisting of low-frequency five-letter words by the paired-associate method. The results indicated that temporal factors play a significant role in facilitating reverse mediation.

1966

"The Relationship between Vigilance and Monotonous Work," by Robert A. Baker and J. Roger Ware, *Ergonomics*, vol. 9, no. 2, March 1966. (Div. 5)

"Learning to Lead," by MG Edmund B. Sebree, USA Ret., *Military Rev.*, vol. XLVI, no. 5, May 1966. (Div. 3)

This article presents an historical examination of leadership and characteristics of the leader. Statements on the issue by prominent military leaders of the world and a "career pattern" derived from personnel records of more than 200 officers are presented. Leadership is defined broadly as a social interaction between the leader as an individual, the men being led, and a vast number of varying situational factors. Essential leadership traits are condensed under the headings: professional knowledge, setting and demanding high standards, and showing consideration for others. Leadership is characterized as a dynamic interaction process which is learned, not taught.

Presentations

1952 - 1955

"Leadership and Small-Group Behavior," by Launor F. Carter, paper read at Second Conference of Social Psychology, April 1952. (Div. 3)

Some theoretical considerations are presented regarding the nature of the problem of groups and of leadership.

"Recording and Evaluating the Performance of Individuals as Members of Small Groups," by Launor F. Carter, paper read at meeting of APA, 1953. (Div. 3)

College men were formed into groups of four or eight members and run on a reasoning task, a mechanical assembly task, and a discussion task, either in emergent-leader or appointed-leader situations. At the end of each task, two observers rated the subjects on 19 variables (such as the individual's cooperation, efficiency, confidence, prestige, insight, initiative, and leadership). In spite of considerable variation in groups, three factors emerged: individual prominence, group goal facilitation, and group sociability. These results indicated that leadership is not a single basic dimension.

"Test of a Method for Predicting Factual Learning From a Training Film," by John V. Zuckerman, paper read at meeting of EPA, 1954. (Dir. Off.)

"An IBM Application to Scaling Problems," by Arnold A. Heyl, paper read at meeting of American Sociological Society, 1955. (Dir. Off.)

"Multiple Criteria in Productivity Studies of Military Groups," by Ira H. Cisin and Francis H. Palmer, paper read at meeting of American Sociological Society, 1955. (Dir. Off.)

A methodological approach to generalization of criteria in studies of group effectiveness is discussed.

"The Planning of Program Research," by Meredith P. Crawford, paper read at Symposium, meeting of APA, 1955. (Dir. Off.)

1956 - 1960

"Small Group Research in the Military," by Francis H. Palmer, paper read at West Coast Conference on Small Group Research, April 1956. (Div. 3)

"Leadership Concepts," by Francis H. Palmer, paper read at West Coast Conference on Small Group Research, April 1957. (Div. 3)

"Leadership Training," by Francis H. Palmer, paper read at Symposium on Preventive and Social Psychiatry, Walter Reed Army Institute of Research, April 1957. (Div. 3)

"A Method of Wide Applicability for Testing Hypotheses About the Structure of Qualitative Variables," by R.G. Demaree, paper read at meeting of APA, 1957. (Div. 5)

"An Analysis of Aggressive Behavior," by Milton A. Grodsky, paper read at meeting of Southern Society of Philosophy and Psychology, April 1958. (Div. 5)

"Prediction of Flight Training Attrition by Grade Steps for the First Ten Flights," by D.K. Trites, William F. Brown, and B.B. Cobb, paper read at meeting of Aeromedical Association, April 1958. (Div. 5)

"A Comparison of Alternative Significance Tests," by Mitchell M. Berkun, Helen L. Tambellini, and Liese Rapozo, paper read at meeting of WPA, 1958. (Div. 3)

General-Presentations (Cont.)

"Are Initial Responses to a Learning Sequence Random?" by Hilton M. Bialek, paper read at meeting of APA, 1958. (Div. 3)

College students, randomly placed into 24 groups of 15 each, were told to look at a panel of lights arranged in a circle and to guess which one of the lights would be turned on. They indicated their choice before the light appeared, during 60 trials. The number of alternatives was varied from three to six. In all but two cases, the groups were doing something other than random guessing from the beginning of the sequences. Randomness of initial response, to the established binary random sequence and methodological implications are discussed.

"Methodology of Establishing Military Research Requirements," by Joseph C. Hammock, paper read at meeting of APA, 1958. (Div. 5)

"Self-Paced Work and Rest With Variations in Work Load and Prior Task Information," by J.D. Hitt, Jr., paper read at meeting of APA, 1958. (Div. 5)

"Small Group Leadership," by Charles E. Hall, Salvatore N. Cianci, John E. Taylor, and John B. McKay, paper read at meeting of APA, 1958. (Div. 4)

"Training Research," by Meredith P. Crawford, paper read at U.S. Army Infantry Conference, The Infantry Center, Fort Benning, Ga., December 1958 (Unclassified); in *Infantry Conference Report, 1958* [U], Headquarters, United States Army Infantry School, Fort Benning, Ga., February 1959 (SECRET). (Dir. Off.)

"Some Considerations on Human Factors in Future Combat," by John L. Finan, paper read at the Army War College, Carlisle, Pa., January 1959. (Dir. Off.)

"Gradients of Generalization in Secondary Reinforcement," by Bruce O. Bergum, paper read at meeting of MPA, 1959. (Div. 5)

Some Problems in the Description of Jobs for Electronic Maintenance Training, by Robert Vineberg, paper read at Research Planning Conference on Job Qualifications Analysis, Office of Naval Research, Washington, May 1959. (Div. 1)

"A Conceptual Approach to Training Research," by Meredith P. Crawford, address at the Army Science Conference, United States Military Academy, June 1959; in *Proceedings of the 1959 Army Science Conference, United States Military Academy, West Point, N.Y., 24-26 June 1959*, Army Research Office, Office of the Chief of Research and Development, Department of the Army, Washington, vol. I [undated]. (Dir. Off.)

"The Role of Media in Education and Training," by William A. McClelland, paper read at USAF-NRC Symposium on Education and Training Media, Washington, August 1959, in *Education and Training Media, a Symposium*, Glen Finch (ed.), Publication 789, National Academy of Sciences-National Research Council, Washington, 1960. (Div. 1)

"The Use of Part-Task Trainers and Operational Equipment as Training Devices," by William A. McClelland, paper read at meeting of APA, 1959. (Div. 1)

Training Methodology and Training Research: Their Application in the Development of Training Programs, by Robert Vineberg, paper read at Institute for Federal Employee Development Officers, National War College, Washington, November 1959. (Div. 1)

"Research and Development in Training and Education," by Meredith P. Crawford, paper read at Symposium on the Contributions of Military Research to Education and Training, Northwestern University, Evanston, December 1959. (Dir. Off.)

"Army Research in Human Factors" [by LTC David Cooper], paper read at Symposium, meeting of SWPA, 1960.¹ (Div. 5)

¹Colonel Cooper was the Unit Chief of the U.S. Army Air Defense Human Research Unit.

"The Concept of a Technology of Training," by Robert G. Smith, Jr., paper read at Symposium, meeting of SWPA, 1960. (Div. 5)

"The Utilization of Master's Level Personnel in Military Training Research," by Robert G. Smith, Jr., paper read at Symposium, meeting of SWPA, 1960. (Div. 5)

"Research in Military Laboratories," by J.D. Lyon, paper presented at Symposium, Southern Society for Philosophy and Psychology, April 1960. (Div. 5)

"RCAF Experience With the Training of NATO Aircrew," by Squadron Leader E.P. Sloan," discussion by Meredith P. Crawford at NATO Symposium on Defense Psychology, Paris, July-August 1960; published in *Defence Psychology*, Frank A. Geldard (ed.), Pergamon Press, New York, 1962. (Dir. Off.)

"The Role of Expectancy in Auditory Vigilance," by Arthur Floyd, Jr., Gary D. Griggs, and Robert A. Baker, paper read at meeting of APA, 1960. (Div. 2)

"Some Relationships Between Training Research and Human Engineering in the Design of Weapon Systems," by Theodore R. Vallance, paper read at the 6th Annual AHFE Conference, Fort Belvoir, Va., October 1960. (Dir. Off.)

1961

"An Overview: HumRRO Organization and Research" [by W.L. Williams, Jr.], paper read at Symposium, meeting of RMPA, 1961. (Div. 5)

"Performance of Mental Deficients on a Simple Vigilance Task," by J. Roger Ware, Robert A. Baker, and Raymond R. Sipowicz, paper read at meeting of MPA, 1961. (Div. 2)

"Design and Evaluation of Printed Job Aids for Electronics Repairmen," by Arthur J. Hoehn, James P. Rogers, and Charles D. Fink, paper read at U.S. Army-Industry Maintenance Publications Conference, Fort Knox, Ky., May 1961. (Div. 1)

"How Far Should Training Be Automated? or A Perspective for the Training Manager on the Automation of Military Courses of Instruction," by William A. McClelland, invited address at the Training Command Commanders' Conference, Aberdeen Proving Ground, Md., May 1961. (Dir. Off.)

"Improved Manuals for Man-Machine Systems Through Task Analysis," by Eugene F. MacCaslin, paper read at U.S. Army-Industry Maintenance Publications Conference, Fort Knox, Ky., May 1961. (Div. 1)

"How Far Should Training Be Automated? or A Perspective for the Training Manager on the Automation of Military Courses of Instruction," by William A. McClelland, paper presented at USCONARC, Fort Monroe, Va., June 1961. (Dir. Off.)

"Responses to Transformations: Remembering and Understanding" [by Edmund B. Coleman], paper read at meeting of the Linguistic Society of America, Chicago, December 1961. (Div. 5)

"Selected Current Research in Military Psychology," by Carl J. Lange, paper read at U.S. Military Academy, N.Y., December 1961. (Div. 4)

1962

"A Procedure for Controlling Army School Curricula," by William A. McClelland, paper read at meeting of Working Group for the Army School System Study, USCONARC, Fort Monroe, Va., January 1962. (Dir. Off.)

General-Presentations (Cont.)

"Teaching Machines and Programmed Learning in Use: In the Army - The Past and Plans," by J. Daniel Lyons, paper read at Symposium, meeting of Southern Society for Philosophy and Psychology, Memphis, April 1962. (Div. 6)

"Training for Performance Under Stress," by S. James Goffard, paper read at meeting of District of Columbia Psychological Association, May 1962. (Dir. Off.)

"The Engineering of Training," by Meredith P. Crawford, paper read at Army Human Factors Engineering Conference, U.S. Army Infantry Center, Fort Benning, Ga., October 1962. (Dir. Off.)

"Practical Aspects of the Behavioral Sciences," by Meredith P. Crawford, invited lecture before the Washington Academy of Sciences, Washington, November 1962. (Dir. Off.)

"Current Views on Psychology and Leadership," by Carl J. Lange, paper read at U.S. Military Academy, December 1962. (Div. 4)

"Reversibility of the After-Images of Ambiguous Figures," by Robert O. Wood, Jr., paper read at meeting of Texas Psychological Association, San Antonio, December 1962. (Div. 5)

1963

"Draft Policy Statement on Effects of Fatigue and Confinement," by Norman Willard, Jr., paper read at U.S. Army Armor Policy Conference, Fort Knox, Ky., January 1963 (incorporated in Conference Recommendations, Sixth Quadripartite Conference on Armour, Bovington, England, 8-16 May 1963). (Div. 2)

"Training Research in the United States Army," by William A. McClelland, paper read at the Training Conference for the National Security Industrial Association, Fort Bliss, Tex., February 1963. (Dir. Off.)

"Human Processing of Olfactory Information," by Robert H. Wright and Kenneth M. Nichols, paper read at Bionics Symposium, Wright-Patterson AFB, Ohio, March 1963; in *1963 Bionics Symposium Contributed Paper Preprints*, Aeronautical Systems Division and the Aerospace Medical Research Laboratories, Wright-Patterson AFB, Ohio, March 1963. (Div. 6)

"Programmed Instruction and the Technology of Training," by Robert G. Smith, Jr., paper read at meeting of National Society for Programmed Instruction, March 1963. (Dir. Off.)

"The Effects of Verbal and Non-Verbal Knowledge of Results on Detection Performance," by J. Roger Ware, Boyd Kowal, and Robert A. Baker, paper read at meeting of MPA, 1963. (Div. 2)

"Vigilance Performance Under Conditions of Single Versus Multiple-Type Signal Presentation," by William C. Osborn, Robert A. Baker, Jr., and Richard W. Sheldon, paper read at meeting of MPA, 1963. (Div. 2)

"Criteria for Career Force Structure," by Norman Willard, Jr., paper read at Inter-Service Conference on Techniques for Determining the Military Career Force Structure, Washington, May 1963. (Div. 2)

"Training Research Utilizing Man-Computer Interactions: Promise and Reality," by William A. McClelland, paper presented at Avionics Panel Program on Natural and Artificial Logic Processors, AGARD, Athens, Greece, July 1963. (Dir. Off.)

"A Tentative Taxonomy of Task Demands," by Eugene F. MacCaslin, paper read at meeting of APA, 1963. (Div. 1)

"The Evaluation of Systems-Analytic Training Programs," by Eugene A. Cogan, paper for Panel Discussion at 9th Army Human Factors Research and Development Conference, Walter Reed Army Institute of Research, Washington, October 1963. (Dir. Off.) AD-637 246

"What Programmed Instruction Is-And Isn't," by Robert G. Smith, Jr., paper read at Bureau of Naval Weapons Training Conference, Washington, October 1963. (Dir. Off.)

"Lao Buddhism: A Vehicle for Technical Change," by Arthur Niehoff, paper read at meeting of American Anthropological Association, San Francisco, November 1963; also issued under the title, "Theravada Buddhism: A Vehicle for Technical Change," *Human Organization*, vol. 23, no. 2, Summer 1964. (Div. 7)

1964

"Beyond Programed Instruction," by Robert G. Smith, Jr., Presidential Address read at meeting of National Society for Programmed Instruction, San Antonio, April 1964. (Dir. Off.)

"The Improvement of Human Performance Through Research," by Meredith P. Crawford, paper read at the Institute of Research Administration, American University, Washington, April 1964. (Dir. Off.)

"Interfaces Between Operations Research and Human Factors Research," by Eugene A. Cogan, paper read at U.S. Army Operations Research Symposium, Moline, Ill., May 1964. (Dir. Off.)

"Command Leadership," by Joseph A. Olmstead, paper read at Air Command and Staff College, Air University, Maxwell AFB, Ala., September 1964. (Div. 4)

"Learning Theory and Research Paradigms Applied to Training Research: Some Dissonances," by Eugene F. MacCaslin and Eugene A. Cogan, paper read at meeting of APA, 1964. (Div. 1)

"A Review of Recent Research and Development on Military Leadership, Command, and Team Function," by Meredith P. Crawford, paper read at meeting of APA, 1964; also issued as a HumRRO Research Memorandum, September 1964. (Dir. Off.) AD-478 288

"Statistical Judgment: A Study of Mean Length and Mean Inclination," by Arthur Miller, Robert Baker, and Richard Jones, paper read at meeting of APA, 1964. (Div. 2)

"Army Human Factors Information Developments," by A. James McKnight, paper read at Symposium, meeting of Human Factors Society, Washington, October 1964. (Div. 1)

"Training Oriented Human Factors Engineering of Army Aircraft," by Robert H. Wright, paper read at meeting of the Army Human Factors Research and Development Conference, U.S. Army Board for Aviation Accident Research, Fort Rucker, Ala., October 1964. (Div. 6)

1965

"The Application of Programed Instruction to Foreign Language and Literacy Training," by Eugene H. Rocklyn, paper read at NATO Symposium on the Military Applications of Programed Instruction, Naples, Italy, April 1965. (Div. 7)

"Management Considerations in Programmed Instruction," talk by Robert G. Smith, Jr., at NATO Symposium on the Military Applications of Programed Instruction, Naples, Italy, April 1965. (Dir. Off.)

General-Presentations (Cont.)

"Military Applications of Programed Instruction," talk by Robert G. Smith, Jr., at NATO Symposium on the Military Applications of Programed Instruction, Naples, Italy, April 1965. (Dir. Off.)

"Dimensions of Simulation," by Meredith P. Crawford, Presidential Address for Division of Military Psychology, read at meeting of APA, 1965. (Dir. Off.)

"Psychological Research in Electronic Maintenance Training," by W.A. McClelland, paper read at Director of Electrical and Mechanical Engineers Study Period 1965, Arborfield, England, November 1965. (Dir. Off.)

In order to establish a form of reference for the British audience, HumRRO's role and mission in Army research and Development, the U.S. Army personnel and maintenance systems, and a procedure for curricular control are briefly described. The bulk of the paper is devoted to selected examples of HumRRO RSD in electronics maintenance training. FORECAST, JOBTRAIN, MAINTRAIN, LIMIT, and REPAIR are cited.

1966

"Men, Machines and the Software Middle Man," by Edgar L. Shriver, paper read at meeting of Society of Technical Writers and Publishers, Huntsville, Ala., March 1966; also issued as HumRRO Professional Paper 3-66, April 1966. (Div. 1)

AD-634 213

The common elements of recently developed new concepts of electronics maintenance are described. Some possible applications of these concepts for changes in the jobs of technical writers are discussed.

"Factors Influencing Utilization of Research Findings in Institutional Change," by J. Daniel Lyons, paper read at meeting of SEPA, 1966; also issued as HumRRO Professional Paper 2-66, April 1966. (Div. 1)

AD-634 839

Some of the factors and conditions which appear to have influenced the utilization by the U.S. Army of HumRRO research findings are presented and discussed.

Part III: Research By-Products

BLANK PAGE

RESEARCH BY-PRODUCTS

Human factors research and development directed toward the improvement of a specific Army activity often produces by-products, such as documents, materiel, manuals, textual materials used in the study, which may be suitable for operational use by the Army. Although direct utilization may be possible, such materials typically require adaptation for operational application. These by-products, which are devised as part of the research process, range from specific items such as training programs or job aids to more general materials having human factors relevance in training and other activities.

ACHILLES

Job performance test for Nike IFC maintenance technicians:

Part II of Research Memorandum, *A General Note on the Development and Use of Job Performance Tests and a Detailed Description of Performance Tests for NIKE IFC Technicians*, by W.L. Williams, Jr., and Paul G. Whitmore, Jr., March 1959.

AREA

Illustrations of problems for instructor use in area training:

Examples of Cross-Cultural Problems Encountered by Americans Working Overseas: An Instructor's Handbook, by Robert J. Foster, May 1965.

ARMORCOM I

Communications training program (ASubSch 17-600) and performance test for tank radio operators:

Appendices B and C of Special Report 9, *Simplification of the Panel Layout on Standard Series Tank Radios*, by Boyd L. Mathers, July 1957.

ARMORNITE XIII

Ground surveillance radar signals taped for target discrimination training:

Supplementary materials to Technical Report 90, *Operator Proficiency in Interpreting Ground Surveillance Radar Signals (AN/TPS-33)*, by Alfred J. Kraemer, David L. Easley, Arthur L. Miller, and Paul H. Stevenson, June 1964 (For Official Use Only).

BASICTRAIN

Performance test of basic infantry skills for BCT graduates:

Staff Memorandum, *Basic Infantry Skills Performance Test, ATP 21-114*, by George D. Greer, Jr., Finis W. Wilson, and Morton G. Wolpert, March 1956.

BASICTRAIN I

Minimal training goals and analysis by subject of the Army Training Program for Basic Combat Training:

Technical Report 67, *The Development of a List of Minimal Training Goals for Basic Combat Training*, by Albert Elkin, December 1960.

CLASSIC I

Operating procedures for guided missile personnel:

Part II of Technical Report 51, *A Study of Human Factors in the Operation of the Nike Ajax System, Part I: The Training Problems and Requirements. Part II: "The Shooting Team"—Recommended Operating Procedures (For Official Use Only)*, with supplementary data and questionnaire in Research Memorandum, *A Study of Human Factors in the Operation of the Nike Ajax System, Part III: Technical Appendices*, by Randall M. Hanes and Robert A. Goldbeck, November 1958 (For Official Use Only).

CONTACT II-III

Self-instructional taped courses with related printed materials for Russian and Mandarin Chinese languages:

Supplementary materials to Technical Report 65-14, *A Self-Instructional Course in Russian*, by Eugene H. Rocklyn, December 1965, and Technical Report 65-15, *Development and Evaluation of a Tactical Mandarin Chinese Language Course*, by Catherine Garvey and Eugene H. Rocklyn, December 1965.

EBAT

Combat readiness check for light weapons infantryman:

Technical Appendices to draft report on experimental evaluation of the basic and advanced training of the light weapons infantryman, by Robert L. Weislogel, Paul L. Schwarz, Albert J. Kubany, and Robert A. Baker, September 1954.

FIREPOWER IV

Target detection training program including slides:

Supplementary materials and Appendices to Research Memorandum, *Target Detection: Study 1, A Preliminary Investigation of the Trainability of Target Detection and Distance Estimation Skills*, by Edward A. Stark, Peter C. Wolff, and Donald F. Haggard, July 1961.

FIREPOWER VI

Firing tables for tank gunners:

Appendices A and B of Research Memorandum, *An Improved Series of Firing Tables for the Tank Gunner*, by Arnold B. Woodruff, Edward A. Stark, and Norman Willard, Jr., June 1959.

FORECAST II-III

Guide to task analysis and use of training techniques for electronic systems maintenance: *A Procedural Guide for Technical Implementation of the FORECAST Methods of Task and Skill Analysis*, by Edgar L. Shriver, C. Dennis Fink, and Robert C. Trexler, July 1961.

FORECAST IV

Practical exercise equipment for Sergeant missile system maintenance training:

Published as training manual by U.S. Army Ordnance Guided Missile School, Redstone Arsenal, Ala., January 1964; developed from Research Memorandum, *A Description of SNAP Programming*, by Edgar L. Shriver and Robert C. Trexler, May 1963.

Scrambled books for teaching troubleshooting of the HIPAR transmitter:

Supplement, *SNAP Programming: Troubleshooting the Improved NIKE Hercules HIPAR Transmitter*, by Edgar L. Shriver and Robert C. Trexler, February 1964, to Research Memorandum, *A Description of SNAP Programming*, by Edgar L. Shriver and Robert C. Trexler, May 1963.

JOBTRAIN III

Procedural guides for checking equipment, necessary troubleshooting steps:

Published as Southeastern Signal Corps School manuals, *TA-182/U Checkout Manual*; *AN/TCC-3 Checkout Manual*; *AN/TCC-7 Checkout Manual*; *AN/TCC-1 Checkout Manual*; *PP-826/U Checkout Manual*; *TH-5/TG Checkout Manual*; and *Radio Set AN/GRC-50*; 1962-1964.

LIFT

Standardized performance checklist for flight proficiency measurement and manual of instructions for check pilot training in use of FPDR:

Supplementary materials and training manual, *PPDR Handbook: Use of Pilot Performance Description Record in Flight Training Quality Control*, by George D. Greer, Jr., Wayne D. Smith, Jimmy L. Hatfield, Carroll M. Colgan, and John O. Duffy, December 1963.

LIFT I

Instructors' standardized description of helicopter maneuvers for student pilots:
Manuals, *Experimental Edition, Instructor Patter for H-23 Helicopter Training*, March 1957,
and *Experimental Edition, Instructor Patter for H-13 Helicopter*, August 1957.

Standardized helicopter maneuver descriptions for instructor and trainee use:
Training manual, *Standardized Maneuvers for H-23 Helicopter Training*, September 1957.

LIFT II

Student flying achievement checklist:
Research instrument, *Basic Flight Evaluation*, May 1958.

LIFT IV

SOPs for scheduling, conducting, and evaluating class results of checkrides:
Appendices A and B of Consulting Report, *A System of Flight Training Quality Control and Its Application to Helicopter Training*, by John O. Duffy and Carroll M. Colgan, June 1963.

LIMIT I

Program of instruction on the operation of a gasoline engine fuel system, lesson plans and achievement tests for low-aptitude enlisted personnel:
Staff Memorandum, *Special Lesson Plans: Gasoline Engine Fuel System*, by Robert Anneser and Robert S. Beecroft, February 1958.

LOCK-ON I

Scales, checks, and forms for evaluating Nike IFC operators:
Research Memorandum, *On-Site Training of Guided Missile Operators: Evaluation Materials*, by Myron Woolman, October 1960.

Training program for on-site Nike IFC operators:
Training manual, *USARADCOM Integrated Fire Control Training Guide*, July 1957, and supplementary materials to Technical Report 64, *On-Site Training of Guided Missile Operators*, by Myron Woolman, August 1960; also published as Army Training Circulars TC 44-4, *NIKE-AJAX Launching Area Training Guide*, September 1961, TC 44-5, *NIKE-AJAX Battery Control Area Training Guide*, October 1961, and TC 44-6, *NIKE-HERCULES Launching Area Training Guide*, January 1962.

MAINTRAIN III

Procedures for maintenance on complex weapon systems for the Nike-Ajax launcher and assembly area personnel:
Research Memorandum, *A Survey of Organizational Maintenance of the Nike Ajax Missile*, by Robert A. Goldbeck, Emanuel Kay, W.L. Williams, Jr., and James P. Rogers, July 1960 (Subcontractor: American Institute for Research).

MAINTRAIN V

Troubleshooting manual for guided missile systems:
Experimental manual, *Assembly Area Trouble Shooting Manual—Missile Guidance Set AN/DPW-11, Guided Missile Test Set AN/DSM-12, Guided Missile Electrical Test Set M22 (Nike-Ajax Antiaircraft Guided Missile System)*, undated.

Guide to the preparation of improved manuals for use in the troubleshooting of complex electronic equipment:
Preparation of MAINTRAIN Troubleshooting Manuals, Working Paper, by James P. Rogers and Julia S. Harris, October 1964.

Proposed contents for troubleshooting manuals:
Appendix B of Technical Report 65-1, *The Development and Evaluation of an Improved Electronics Troubleshooting Manual*, by James P. Rogers and H. Walter Thorne, March 1965.

MALT

Self-instructional taped course with related printed materials for programed Basic Vietnamese Course.

MAPREADING

Mapusing training program including proficiency test:

Appendices to Technical Report 11, *The Map-Using Proficiency of Basic Trainees*, by Robert B. Tallarico, William E. Montague, and Victor H. Denenberg, September 1954.

MAPUSING

Requirement indices of map skills for infantry, armor, and reconnaissance combat personnel in each of seven levels of responsibility:

Table 3 of Technical Report 43, *A Survey of Map Skills Requirements*, by Eugene A. Cogan, Norman E. Willmorth, and Donald C. Findlay, September 1957.

MAPUSING VI

Survey test of map reading for officers:

Supplementary materials to working paper on the proficiency of officers in reading and using maps, by Donald C. Findlay, Eugene G. Roach, and Pauline T. Olson, January 1958.

MOBILITY I

Tank maintenance and operation checklist:

Appendix A of Staff Memorandum, *A Survey of First Echelon Maintenance Practices and Their Effects*, by Donald J. Baerman, September 1956.

MOBILITY IV-V

Job requirements for maintenance duties of armor mechanics and supervisors:

Part 2 of task paper, *MOBILITY: Review of Problems and Past Research, Conceptualization of the Task, and Plan of Current and Future Research*, by John P. Smith, June 1960.

MOBILITY VI

Malfunction indicator lists for the M48A1 tank:

Part II of Staff Memorandum, *Malfunction Indicator Lists for the M48A1 Tank*, by Ronald C. Kelsay, Ronald G. Shock, and Donald F. Haggard, May 1958.

Picture guide for junior officers conducting maintenance inspections on M48A1 and M48A2 tanks:

Contained in Research Memorandum, *The Effectiveness of Visual Demonstrations of Signs of Malfunction and Wear in Equipment* (revised), by Donald F. Haggard and Ronald G. Shock, June 1962.

MOBILITY X

Test exercises for turret mechanics:

Appendices B and C and supplementary materials to Research Memorandum, *The Development of Performance Criteria for Turret Mechanics*, by Jack Mumford and John P. Smith, July 1961.

MOONLIGHT IV

Instructor's manuals for training and testing TOE rifle squads in defensive and offensive action:

Appendices B to G in Technical Report 17, *MOONLIGHT IV: Training the Rifle Squad in Night Technique of Fire*, by Edgar L. Shriver, John Sivy, and Henry S. Rosenquist, May 1955.

MOONLIGHT XII

Program of instruction and instructor's guide for day-night basic training in squad technique of fire:

Research Memorandum, *Experimental Training in Night Technique of Fire and Squad Tactics*, November 1959.

NCO

Leadership preparation program for BCT graduates including program of instruction, training materials, and films.

Leadership orientation course (LOC) for basic trainees including student handbook, automated tapes and slides, and materials to supplement the basic course.

Leadership preparation program (automated version) for BCT graduates including manuals, workbooks, electronic programer, and training materials.

NCO II

Manual for noncommissioned officers for use in training and as reference:

A Guide for the Potential Noncommissioned Officer, December 1961; 4th edition published as USCONARC Pamphlet No. 350-24, June 1963.

OBSERVE I

Training aids and color slides for basic target recognition, and location and geographic orientation for aerial observers:

Supplementary materials and manual, *Training Materials for Aerial Observer Instruction in Basic Visual Skills*, by CPT James M. Hesson and Francis H. Thomas, October 1962, Supplement to Technical Report 80, *Low Altitude Aerial Observation: An Experimental Course of Instruction*, by Francis H. Thomas, October 1962.

OBSERVE II

Programed course on low altitude aerial observation—administrative manual, training manuals, achievement tests, and training aids:

Supplementary materials to Research Report 14, *Programed Instruction and Low Altitude Aerial Observation*, by Peter B. Dawkins, December 1964. Published as TM 1-380, *Aerial Observer Programed Texts*, April 1966; including TM 1-380-1, *Administrative Manual*; TM 1-380-2, *Visual Search*; TM 1-380-3, *Target Recognition*; TM 1-380-4, *Geographic Orientation*, with DA Form 1-380-4, *Response Sheets*, March 1966; TM 1-380-5, *Target Location*, with DA Form 1-380-5, *Response Sheets*, March 1966; TM 1-380-6, *Criterion and Achievement Tests*, with DA Form 1-380-6 *Response Sheets*, March 1966.

OFFTRAIN IV

Program of instruction in officer leadership, consisting of student text and instructor's guide, in basic problems in small units:

Basic Problems in Small-Unit Leadership, by T.O. Jacobs; *Instructor's Guide: Basic Problems in Small-Unit Leadership*, by T.O. Jacobs, R.C. Rahn, and C.B. Moore; and *Practical Exercises: Basic Problems in Small-Unit Leadership*, by T.O. Jacobs, R.C. Rahn, and J.J. Macisco; February 1962.

PATROL I

Program of instruction, including subject schedule, training aids, and requirements for training facilities, in land navigation appropriate to the BCT level:

Supplementary materials and Research Memorandum, *Instructor's Guide, PATROL I, Land Navigation: Basic Instruction*, November 1959; and *Basic Instruction in Land Navigation, Proficiency Test Manual*, December 1958. Published as part of TC 7-5, *Land Navigation*, June 1965.

PATROL II

Program of instruction, including subject schedule, training aids, and requirements for training facilities, on nighttime reconnaissance patrolling for the infantry soldier:

Training manual, *Instructor's Guide, PATROL II, Reconnaissance Patrolling: A Course Stressing Integration of Basic Skills*, November 1957.

PROFICIENCY

Individual proficiency tests for light infantry and basic combat trainees of critical subjects and skills:

Supplementary materials to Technical Report 19, *Development of Proficiency Tests for Basic Combat and Light Infantry Training*, by Robert A. Baker, Guy Scott, and Eugene F. MacCaslin, July 1955.

RADAR V

Operating procedures for the M33 operator:

Special Report 6, *The AAFCS M-33 Operator: A Manual of Operating Procedures*, by George H. Brown, Donald F. Haggard, and J. Daniel Lyons, August 1956.

RADAR VI

Training program for the AAFCS M33 technician including lesson plans and practical exercises:

Technical supplementary material, *AAFCS M33 Technician Training Program*, June 1958, Volume I, *Operation Orientation*; Volume II, *Electronic Fundamentals*; Volume III, *Acquisition Radar*; Volume IV, *Track Radar*; Volume V, *Computer*; and Volume VI, *Maintenance and Supply Procedures*.

RECON I

Job requirements for armored cavalry platoon personnel:

Appendix A of Technical Report 92, *Determination of Combat Job Requirements for Armored Cavalry Platoon Personnel*, by William L. Warnick and Robert A. Baker, December 1964.

RECON II

Guide for use of the armored cavalry trainer:

Training manual, *User Manual for the Armored Cavalry Trainer (ACT)*, by Robert A. Baker, John G. Cook, and William L. Warnick, October 1964. Published as USCONARC Pamphlet 350-4, *User Manual for DVC 17-15, Armored Cavalry Trainer (ACT)*, July 1965.

RECON III

Workbook on tactics for armored cavalry platoon leader:

The Armored Cavalry Platoon Leader's Tactical Workbook, by William L. Warnick, November 1965.

A detailed tactical performance checklist of the combat skills required of armored cavalry platoon personnel:

Training manual, *The Armored Cavalry Platoon Combat Readiness Check*, by John G. Cook; *Preface and Phase I, Individual Phase*, November 1965; *Phase II, Squad and Section Phase*, April 1966; *Phase III, Intact Platoon Phase*, May 1966.

A self-instructional booklet on disassembly, assembly, loading, immediate action, and unloading of the M-73 machine gun:

A Pictorial Program for the M-73 Machine Gun, April 1966.

RIFLEMAN I

Proficiency requirements for combat of light weapons infantryman:

Annexes I through V of Research Memorandum, *Critical Combat Skills, Knowledges, and Performances Required of the 1962 Light Weapons Infantryman (MOS 111.0)*, January 1961.

RIFLEMAN III

Description of special devices and procedures to simulate combat realism in testing performance of light weapons infantrymen:

Appendix B of Technical Report 81, *Performance Evaluation of Light Weapons Infantrymen (MOS 111.0), Graduates of the Advanced Individual Training Course (ATP 7-17)*, by T.F. Nichols, J.S. Ward, N.I. Fooks, F.L. Brown, and H.S. Rosenquist, December 1962.

RIFLEMAN IV

Program of instruction, including instructor's guide and lesson plans, of rifle squad tactics, and technique of fire:

Instructor's Guide, Description of Course and Detailed Lesson Plans for Technique of Fire and Tactics, Rifle Squad (MOS 111.0, 112.0 and 114.0), by Joseph S. Ward and N.I. Fooks, May 1965. Published as part of TC 23-9, *Technique of Fire and Tactics, Rifle Squad*, September 1964.

Scrambled book for teaching defensive combat:

Fundamental Considerations for Defensive Combat, June 1965.

Scrambled book for teaching offensive combat:

Fundamental Considerations for Offensive Combat, June 1965.

Instructors' guide for training techniques in clearing buildings:

Combat in Built Up Areas: A Two-Hour Course in Clearing Buildings, by Joseph S. Ward, N.I. Fooks, William T. Hazelton, September 1965.

Training films to introduce the program of instruction for technique of fire and tactics, rifle squad:

"The Role of the Light Weapons Infantryman: Part I, Attack; Part II, Defense," June 1966.

RIFLEMAN V

Manual for instructors of land navigation as part of AIT:

Research Memorandum, *Instructor's Guide-Advanced Land Navigation: A Prototype Course*, July 1963; also published as part of TC 7-5, *Land Navigation*, June 1965.

RINGER

Variety of training devices applicable to training for fixed-procedures tasks:

Technical Report 65-4, *Functional and Appearance Fidelity of Training Devices for Fixed-Procedures Tasks*, by John A. Cox, Robert O. Wood, Jr., Lynn M. Boren, and H. Walter Thorne, June 1965.

SAMOFF I

Job descriptions for Nike-Hercules platoon leaders:

Appendix to Technical Report 62, *The Revision of NIKE Platoon Leader Job Descriptions: AJAX to HERCULES*, by Edgar M. Haverland and Walter J. Fightmaster, May 1960; also published separately.

Job requirements for the Nike-Ajax battery commander, executive officer, IFC platoon leader, and the launcher platoon leader:

Appendices A through D of Technical Report 54, *The Development of Job Descriptions for NIKE AJAX Battery Officers*, by Charles L. Darby, William F. Brown, Charles D. Smith, and Walter J. Fightmaster, April 1959; also published separately.

SAMOFF II

Nike-Ajax platoon leader proficiency tests, August 1959.

Proficiency tests for Nike-Ajax platoon leaders:

Supplementary materials to Technical Report 66, *Measurement of the Job Proficiency of Nike Ajax Platoon Leaders*, by John L. Morse, William F. Brown, Robert G. Smith, Jr., and Walter J. Fightmaster, October 1960 (For Official Use Only).

SAMOFF III

Manual of procedures for developing training objectives for junior officer jobs:
Manual of Procedures for Deriving Training Objectives for Junior Officers (revised),
November 1964.

SAMOFF IV

Set of training materials on air defense equipment for the Nike-Hercules officer, consisting of seven programed textbooks, a book of illustrations, and one separate, unbound illustration:
Checks and Procedures for the Nike-Hercules Officer, June 1964.

SHOCKACTION I

Job requirements for tank crewmen:
Appendices to Technical Report 47, *The Determination of Job Requirements for Tank Crew Members*, by Robert A. Baker, May 1958.

Handbook for tank commanders:
The Tank Commander's Guide (3d edition), by William L. Warnick, John G. Cook, and Robert A. Baker (eds.), published by The Stackpole Company, Harrisburg, Pa., 1963.

SHOCKACTION II

Proficiency tests for the armor TOE and AIT trainees:
Supplementary materials to Staff Memorandum, *The Development of Tests for Two Levels of Armor Proficiency*, by Eugene F. MacCaslin, September 1956.

SHOCKACTION VI

Picture guides for skills of tank crewmen—gunner, driver, and loader:
Training manuals, *The Tank Gunner's Guide* (M48A1 Tank), October 1957, *The Tank Driver's Guide* (M48A1 Tank), May 1958, *The Tank Loader's Guide* (M48A1 Tank), March 1958; also published as DA Training Circulars 17-4 and 17-5, June 1959, and 17-6, July 1959.

Advanced Individual Training program for armor tank crewmen:
Appendices A, B, and D to Technical Report 59, *An Improved Advanced Individual Training Program for Armor*, by Eugene F. MacCaslin, Arnold B. Woodruff, and Robert A. Baker, December 1959.

SWINGSHIFT I

Fundamental individual skills for infantry night training core curriculum:
Parts IV and V of Research Memorandum, *A Provisional Core Curriculum for Infantry Night Operations Training: Conceptualization and Proposed Content*, by Gilbert L. Neal, December 1960.

TANKER

Tactical proficiency test for tank commanders:
Appendices A and B of Technical Report 82, *Improving Tactical Training for Tank Commanders: Test Development and Performance Assessment*, by Shepard Schwartz and Arthur Floyd, Jr., March 1963.

TEXTRECT

Manuals for automated remedial mathematics teaching program:
Pocketschool Series, Mathematics I, Multiplication and Division (Decimals): Part One, Part Two, and Part Three; Mathematics II, Multiplication and Division (Cancellation); Mathematics III, Powers and Roots: Part One and Part Two; Mathematics IV, Powers of Ten; Mathematics V, Simple Equations: Part One, Part Two, and Part Three; Mathematics VI, Proportions: Part One and Part Two; Mathematics VII, Stated Problems: Reference Items for Parts One and Two, Part One, Part Two, and Part Three; Mathematics VIII, Nomograms, July 1960; *Mathematics IX, with Supplemental Graph Book*, June 1963; published as training manuals by the U.S. Army Air Defense School.

TEXTSTRUCT (Cont.)

Training booklets on the section control indicator for the Nike-Hercules, extra study materials for AIT:

Supplementary materials to Research Memorandum, *Studies of Fixed Procedures Training: A Preliminary Test of a Self-Instructional Method*, by Paul G. Whitmore, July 1963.

TEXTSTRUCT II

Procedures outline for programing a course of instruction:

Research Memorandum, *A Procedural Guide to the Programming of Instruction: Preliminary Report*, by William H. Melching, March 1962.

Orientation course on automated instruction for course planners:

Consulting Report, *The Text of an Orientation Workshop in Automated Instruction*, by William H. Melching, John A. Cox, Jesse C. Rupe, and Robert G. Smith, Jr., July 1962.

Procedural task analysis for trainee use of the OS-8 C/U oscilloscope, the TS-505 A/U VTVM, and the TS-352 A/U multimeter:

Procedural Analyses for the Use of Three Pieces of Test Equipment: OS-8 C/U Oscilloscope, TS-505 A/U VTVM and TS-352 A/U Multimeter, by Julia S. Harris and Harold E. Christensen, August 1962.

Guide for developing programed instruction courses:

A Handbook for Programmers of Automated Instruction, by William H. Melching, Robert G. Smith, Jr., Jesse C. Rupe, and John A. Cox, September 1963.

Training objectives of the first week of the U.S. Army Air Defense School's Basic Electronics Course:

Appendix A of Research Memorandum, *Evaluation of an Auto-Instructional Program on the First Week of a Basic Electronics Course*, by William H. Melching, Harold E. Christensen, and Albert L. Kubala, March 1964.

UNIT I

Combat readiness check for individual tank crew members, individual tank crews, and tank platoons:

Appendix A to Research Memorandum, *The Development and Evaluation of the Tank Platoon Combat Readiness Check*, by Robert A. Baker and John G. Cook, April 1963.

Combat job requirements for tank platoon sergeants and leaders:

Appendix A to Technical Report 69, *The Determination of Combat Job Requirements for Tank Platoon Leader and Tank Platoon Sergeant*, by Eugene G. Roach and Robert A. Baker, March 1961.

UNIT II

Tests of armor platoon leader's knowledge and capability for combat decisions:

The Armor Platoon Leader's Knowledge Test and the Tank Platoon Combat Decisions Test, supplementary materials to Technical Report 88, *Development and Evaluation of Systems for the Conduct of Tactical Training at the Tank Platoon Level*, by Robert A. Baker, John G. Cook, William L. Warnick, and James P. Robinson, April 1964.

Manuals for miniature armor battlefield and combat decisions game:

User Manual for the Miniature Armor Battlefield (MAB), and *User Manual for the Armor Combat Decisions Game (CDG)*, by Robert A. Baker and John G. Cook, March 1962 and December 1962, respectively.

UPSTREAM III

Management procedures for providing human factors information during the development of new weapons systems:

Appendices A and B of Technical Report 83, *The Prediction of Training Requirements for Future Weapon Systems: A Personnel Support System Research and Development Process*, by J.C. Rupe, April 1963.

VE-TRAIN I

Job requirements for automotive mechanics:

Annex 11 to Consulting Report, *Job Requirements for Consolidated MOS 630, 631, 632 (Automotive Mechanic)*, by John P. Smith, March 1964.

VIGIL I

Drill procedures and knowledge tests for Nike-Ajax section operating control indicator operator and chief of section:

Appendices A and B of Technical Report 72, *Development and Use of Proficiency Tests for Nike System Launching Platoon Operators*, by James D. Hitt, Jr., and Robert D. Baldwin, August 1961.

VIGIL II

Method of adjusting PPIs:

Appendix of Technical Report 85, *A Filter Method of Adjusting PPI's*, by Robert D. Baldwin and A. Dear Wright, June 1963 (For Official Use Only).

WHOLEPART

Criterion firing tables for marksmanship training for M1 rifle:

Appendices to Staff Memorandum, *A Comparison of Whole Versus Part Methods of Marksmanship Training*, by F.J. McGuigan and Eugene F. MacCaslin, May 1954.

Technical Advisory Service

Instruction in the use of mil formula in tank gunnery:

Training Program: The MIL Relationship, by Dennis Cannon, September 1962.

Diagnostic arithmetic test for the U.S. Army Air Defense School's Basic Electronics Course:

Appendix A of Consulting Report, *A Study of Mathematical Skills Requirements for Basic Electronics in the U.S. Army Air Defense School*, by John A. Cox and Richard C. Montgomery, October 1964.

Troubleshooting manual, scrambled test for operation, within-block procedures, and self-instructional scrambled manual for maintenance course on LORAN Receiving Set AN/UPN-12 and -15:

Supplementary materials to Technical Report 65-3, *Application and Text of the FORECAST Concept of Electronics Maintenance on Navy LORAN Equipment*, by Edgar L. Shriver and Robert C. Trexler, May 1965.

Basic Research I

Training requirements for enlisted personnel MOS 101-MOS 357 and MOS 401-MOS 075:

The HumRRO Training Analysis Directory, Book I: Training Requirements. Part 1: MOS 101-MOS 357, June 1958; Part 2: MOS 401-MOS 075, January 1959. The HumRRO Training Analysis Directory, Book II: Training Data. Part 1: MOS 101-MOS 357 [U], August 1958 (CONFIDENTIAL); Part 2: MOS 401-MOS 075 [U], April 1959 (CONFIDENTIAL); compiled by Francis E. Jones.

Appendices

BLANK PAGE

Appendix A

REPORTS BY NUMBER

Technical Reports

- 1 *DESERT ROCK I: A Psychological Study of Troop Reactions to an Atomic Explosion*, February 1953.
(DESERT ROCK I)
- 2 *DESERT ROCK IV: Reactions of an Armored Infantry Battalion to an Atomic Bomb Maneuver*, August 1953.
(DESERT ROCK IV)
- 3 *The Training Effectiveness of a Tank Hull Trainer*, February 1954.
(TRAINER)
- 4 *Communist Vulnerabilities to the Use of Music in Psychological Warfare*, with Catalogue of Music Recordings for Propaganda Broadcasts to Selected Communist Countries and Instruction Manual, March 1954.
(TREBLE)
- 5 *A Preliminary Investigation of Delinquency in the Army*, April 1954.
(STIR)
- 6 *Evaluation of a Special Live-Firing Trigger-Squeeze Exercise*, May 1954.
(TRIGGER)
- 8 *Infantry OCS Evaluations and Combat Performance*, June 1954.
(OCS)
- 9 *The Effect of Different Methods of Motivating Men to Apply for OCS*, July 1954.
(OCS II)
- 10 *Committee Problem-Solving Techniques at the National War College*, September 1954.
(POLICY)
- 11 *The Map-Using Proficiency of Basic Trainees*, September 1954.
(MAPREADING)
- 12 *The Training Effectiveness of a Stereoscopic Range-Finder Trainer*, October 1954.
(RADEV)
- 13 *Transition From Civilian to Army Life*, October 1954.
(ADIVA)
- 14 *Television in Army Training: Evaluation of Television in Army Basic Training*, November 1954.
(TV I)
- 15 *MOONLIGHT II: Training the Infantry Soldier to Fire the M1 Rifle at Night*, December 1954.
(MOONLIGHT II)
- 16 *Training Achievement in Basic Combat Squads With Controlled Aptitude*, January 1955.
(APTITUDE)
- 17 *MOONLIGHT IV: Training the Rifle Squad in Night Technique of Fire*, May 1955.
(MOONLIGHT IV)
- 18 *Tactical Training of the Infantry Rifle Squad*, June 1955.
(SQUADTRAIN)
- 19 *Development of Proficiency Tests for Basic Combat and Light Infantry Training*, July 1955.
(PROFICIENCY)
- 20 *The AAFCS M-33 Operator: Analysis of Field Activities and Problems With Implications for Training*, August 1955.
(RADAR I)
- 21 *Leadership in Rifle Squads on the Korean Front Line*, September 1955.
(INTERSQUAD)
- 22 *TRAINFIRE I: A New Course in Basic Rifle Marksmanship*, October 1955.
(TRAINFIRE I)
- 23 *The Kazakhs: A Background Study for Psychological Warfare*, November 1955.
(KAZPO)
- 24 *Changes in Student Motivation at an Army Technical Training School*, December 1955.
(WIGWAG II)
- 25 *Consistency in Re-laying as a Factor in Tank Gunnery*, December 1955.
(GUNNERY II)
- 26 *An Assessment Program for OCS Applicants*, February 1956.
(OCS III)
- 27 *Films and Group Discussions as a Means of Training Leaders*, March 1956.
(OFFTRAIN I)
- 28 *An Experimental Evaluation of a Basic Education Program in the Army*, April 1956.
(READ)
- 29 *The Effect of Mock Tower Height in Airborne Training*, May 1956.
(HILO)
- 30 *Research on Methods of Interviewing Foreign Informants*, August 1956.
(RIM)
- 31 *Ordnance IFC Electronics Maintenance Personnel: Analysis of Activities With Implications for Training, Part I—M-33*, September 1956.
(FICON)
- 32 *Evaluation of Four-Week and Eight-Week Basic Training for Men of Various Intelligence Levels*, November 1956.
(BASICTRAIN II)
- 33 *Factors Related to the Collaboration and Resistance Behavior of U.S. Army PW's in Korea*, December 1956.
(PSYFREE)
- 34 *A Simplified Method for Rating the Performance of Stereoscopic Range Finder Operators*, December 1956.
(RANGEFINDER I)
- 35 *Several Methods of Teaching Contour Interpretation*, January 1957.
(MAPUSING V)
- 36 *A Study of Training of Stereoscopic Range Finder Operators for Armor*, February 1957.
(RANGEFINDER II)
- 37 *Ordnance IFC Electronics Maintenance Personnel: Analysis of Field Activities With Implications for Training, Part II—T-38*, March 1957.
(FICON)
- 38 *The AAFCS M-33 Mechanic Proficiency Test: Part I—Comparison of Mechanics With and Without Field Experience, Part II—Development and Cross-Validation*, May 1957.
(RADAR IV)
- 39 *Consistency in Laying the Main Tank Gun in a Live-Fire Situation*, June 1957.
(FIREPOWER II)
- 40 *Identification of the Important Skills in Daylight Land Navigation*, July 1957.
(MAPUSING IV)
- 41 *TRAINFIRE II: A New Course in Basic Technique of Fire and Squad Tactics*, July 1957.
(TRAINFIRE II)
- 42 *Comparison of the Stereoscopic Range Finder, M12 With the Coincidence Range Finder, T43*, August 1957.
(FIREPOWER I)

- 43 A Survey of Map Skills Requirements, September 1957.
(MAPUSING II)
- 44 FIGHTER I: An Analysis of Combat Fighters and Non-Fighters, December 1957.
(FIGHTER I)
- 45 A Survey of Organizational Maintenance of the Medium Tank, May 1958.
(MOBILITY III)
- 46 Development and Evaluation of an Experimental Program of Instruction for Fire Control Technicians, May 1958.
(RADAR VI)
- 47 The Determination of Job Requirements for Tank Crew Members, May 1958.
(SHOCKACTION I)
- 48 Activities of Field Radio Repair Personnel With Implications for Training, May 1958.
(REPAIR I)
- 49 Recognition of Vehicles by Observers Looking Into a Searchlight Beam, July 1958.
(ARMORNITE II)
- 50 The Political Behavior of Korean and Chinese Prisoners of War in the Korean Conflict: A Historical Analysis, August 1958.
(TICK III)
- 51 A Study of Human Factors in the Operation of the Nike Ajax System, Part I: Training Problems and Requirements. Part II: The "Shooting Team"—Recommended Operating Procedures, November 1958.
(CLASSIC I)
- 52 The Development and Use of a Performance Test as a Basis for Comparing Technicians With and Without Field Experience: The NIKE AJAX IFC Maintenance Technician, January 1959.
(ACHILLES)
- 53 Comparison of the Stereoscopic Range Finder, M12 and the Coincidence Range Finder, T43 as Used in Range Determination at Night, April 1959.
(FIREPOWER I)
- 54 The Development of Job Descriptions for NIKE AJAX Battery Officers, April 1959.
(SAMOFF I)
- 55 The Effects of Increasing and Decreasing Training Time on Proficiency in the Critical Armor Skills, June 1959.
(SHOCKACTION V)
- 56 The Effectiveness of 90mm Tank Gun Fire Against the 18-Inch Searchlight, June 1959.
(ARMORNITE III)
- 57 The Effects of Wearing the CBR Protective Mask Upon the Performance of Selected Individual Combat Skills, June 1959.
(PROTECT I)
- 58 Development and Evaluation of an Improved Field Radio Repair Course, September 1959.
(REPAIR II-III)
- 59 An Improved Advanced Individual Training Program for Armor, December 1959.
(SHOCKACTION VI)
- 60 Experimental Comparison of Two Basic Electronics Courses for Fire Control Technicians, February 1960.
(MAINTRAIN I)
- 61 Basic Electronics for Minimally Qualified Men: An Experimental Evaluation of a Method of Presentation, February 1960.
(LIMIT I)
- 62 The Revision of NIKE Platoon Leader Job Descriptions: AJAX to HERCULES, May 1960.
(SAMOFF I)
- 63 Determining Training Requirements for Electronic System Maintenance: Development and Test of a New Method of Skill and Knowledge Analysis, June 1960.
(FORECAST I)
- 64 On-Site Training of Guided Missile Operators, with Supplement USARADCOM Integrated Fire Control Training Guide (Illustrative Selections), August 1960.
(LOCK-ON I)
- 65 A Follow-Up Study of Experimentally and Conventionally Trained Field Radio Repairmen, September 1960.
(REPAIR IV)
- 66 Measurement of the Job Proficiency of Nike Ajax Platoon Leaders, October 1960.
(SAMOFF II)
- 67 The Development of a List of Minimal Training Goals for Basic Combat Training, December 1960.
(BASICTRAIN I)
- 68 Experimental Studies of Skill in Copying International Morse Code, December 1960.
(RADOP)
- 69 The Determination of Combat Job Requirements for Tank Platoon Leader and Tank Platoon Sergeant, March 1961.
(UNIT I)
- 70 Development and Evaluation of a Program of Instruction in Basic Land Navigation, May 1961.
(PATROL I)
- 71 Human Factors in CBR Operations: The Effects of CBR Protection Upon the Performance of Selected Combat Skills in Hot Weather, May 1961.
(PROTECT I)
- 72 Development and Use of Proficiency Tests for Nike System Launching Platoon Operators, August 1961.
(VIGIL I)
- 73 Radar Tracking Accuracy as a Function of Training and Task Variables, October 1961.
(VIGIL II)
- 74 A Survey of Problems in the Tactical Training of Armor Units, December 1961.
(UNIT I)
- 75 Survey of Operational Flying Activities of Rotary Wing Aviators, April 1962.
(LIFT III)
- 76 Survey of Operational Flying Activities of Fixed Wing Aviators, April 1962.
(LIFT III)
- 77 Improving Flight Proficiency Evaluation in Army Helicopter Pilot Training, May 1962.
(LIFT II)
- 78 An Evaluation of Flash Localization Performance With the Fire Control System of the M48 Tank, June 1962.
(ARMORNITE X)
- 79 An Attempt to Develop a Radar Operator Screening Test: A Report of Simulator Instability, June 1962.
(VIGIL II)
- 80 Low Altitude Aerial Observation: An Experimental Course of Instruction, October 1962.
(OBSERVE I)
- 81 Performance Evaluation of Light Weapons Infantrymen (MOS 111.0), Graduates of the Advanced Individual Training Course (ATP 7-17), December 1962.
(RIFLEMAN III)
- 82 Improving Tactical Training for Tank Commanders: Test Development and Performance Assessment, March 1963.
(TANKER)
- 83 The Prediction of Training Requirements for Future Weapon Systems: A Personnel Support System Research and Development Process, April 1963.
(UPSTREAM III)
- 84 A Program of Leadership Instruction for Junior Officers, June 1963.
(OFFTRAIN IV)
- 85 A Filter Method of Adjusting PPI's, June 1963.
(VIGIL II)
- 86 Cold Weather Operational Training of Infantry Forces in the Strategic Army Corps, February 1964.
(COLDSPOT II)
- 87 The Performance of Organizational Maintenance by Track Vehicle Mechanics and Maintenance Sergeants, March 1964.
(MOBILITY IV-V)
- 88 Development and Evaluation of Systems for the Conduct of Tactical Training at the Tank Platoon Level, April 1964.
(UNIT II)
- 89 Advanced Land Navigation: Development and Evaluation of a Prototype Program of Instruction, April 1964.
(RIFLEMAN V)
- 90 Operator Proficiency in Interpreting Ground Surveillance Radar Signals (AN/TPS-33), June 1964.
(ARMORNITE XIII)

- 91 *The Effects of Observer and Viewing Method on Target Detection Location With the 18-Inch Tank-Mounted Searchlight*, June 1964. (ARMORNITE V)
- 92 *Determination of Combat Job Requirements for Armored Cavalry Platoon Personnel*, December 1964. (RECON I)
- 65-1 *The Development and Evaluation of an Improved Electronics Troubleshooting Manual*, March 1965. (MAINTRAIN V)
- 65-2 *Human Factors in Tactical Nuclear Combat*, April 1965.
- 65-3 *Application and Test of the FORECAST Concept of Electronics Maintenance on Navy LORAN Equipment*, May 1965.
- 65-4 *Functional and Appearance Fidelity of Training Devices for Fixed-Procedures Tasks*, June 1965. (RINGER)
- 65-5 *Advisor and Counterpart Activities in the Military Assistance Program in the Republic of China*, June 1965. (ES-2)
- 65-6 *Controlling the Quality of Training*, June 1965.
- 65-7 *The Achievement of Foreign Students in U.S. Army Technical Schools*, June 1965. (CULTECH)
- 65-8 *The Effect of Training on Accuracy of Angle Estimation*, August 1965. (LOWENTRY I)
- 65-9 *The Effects of Map Scale on Position Location*, September 1965. (LOWENTRY I)
- 65-10 *A Model of Junior Officer Jobs for Use in Developing Task Inventories*, November 1965. (SAMOFF III)
- 65-11 *Performance Aids for Junior Officers*, December 1965. (SAMOFF III)
- 65-12 *Measures of Ability and Programed Instruction Performance*, December 1965. (BR-11)
- 65-13 *Short-Term Memory: An Annotated Bibliography*, December 1965.
- 65-14 *A Self-Instructional Tactical Language Course in Russian*, December 1965. (CONTACT II)
- 65-15 *Development and Evaluation of a Tactical Mandarin Chinese Language Course*, December 1965. (CONTACT III)
- 65-16 *Development of Improved Rifle Squad Tactical and Patrolling Programs for the Light Weapons Infantryman*, December 1965. (RIFLEMAN IV)
- 65-17 *Research on the Training of Noncommissioned Officers: A Summary Report of Pilot Studies*, December 1965. (NCO II)
- 66-1 *The Influence of Practice Frames and Verbal Ability on Programed Instruction Performance*, January 1966. (BR-11)
- 66-2 *A Study of Category IV Personnel in Basic Training*, April 1966. (CENTER)
- 66-3 *Development of Procedures for Deriving Training Objectives for Junior Officer Jobs*, May 1966. (SAMOFF III)
- 66-4 *The Derivation, Analysis, and Classification of Instructional Objectives*, May 1966. (INGO)
- 66-5 *The Corrective Action Questionnaire: Development and Administration to Officers and NCOs*, May 1966. (CENTER)
- 66-6 *Development of Technical Training Materials for Nike Hercules Junior Officers*, June 1966. (SAMOFF IV)
- 66-7 *Projected Manpower Needs, and Projected Training Requirements for Operators and Users of Future STINFO Systems*, June 1966. (STINTRAC)
- 66-8 *Experimental Studies of Sensory Deprivation and Social Isolation*, June 1966. (BR-6)
- 66-9 *An Experimental Evaluation of a Driver Simulator for Safety Training*, June 1966. (ES-20)
- 66-10 *Interaction Content and Team Effectiveness*, June 1966. (UNIFECT I)
- 66-11 *Pursuit Rotor Performance: 1. Effects of Reinforcing the Longer Intervals of Continuous Tracking Within Each Trial*, June 1966. (BR-9)
- 66-12 *A Conceptual Model of Behavior Under Stress, With Implications for Combat Training*, June 1966. (FIGHTER V)
- 66-13 *Sources of Variability in Missile Unit Evaluations*, June 1966. (VIGIL)

Research Reports

- 1 *A Study of Leadership in Army Infantry Platoons*, November 1958. (OFFTRAIN II)
- 2 *Some Problems in the Analysis of Trouble Shooting Behavior*, October 1959. (MAINTRAIN II)
- 3 *Effects of Correct and Incorrect Knowledge of Results on Ability to Count Auditory Stimuli*, March 1960. (ENDORSE I)
- 4 *A Performance Requirement for Basic Land Navigation*, March 1960. (PATROL I)
- 5 *Leadership in Army Infantry Platoons: Study II*, July 1960. (OFFTRAIN III)
- 6 *Some Problems in Predicting Training Requirements for Future Weapon Systems*, November 1960. (UPSTREAM II)
- 7 *A Systematic Analysis of Army Training Requirements as the Basis of More Generalized Training Research*, May 1961. (BR-1)
- 8 *A Survey and Analysis of Vigilance Research*, November 1961. (VIGIL IV)
- 9 *Development and Evaluation of Training Methods for the Rapid Acquisition of Language Skills*, January 1962. (CONTACT I)
- 10 *Experimental Studies of Psychological Stress in Men*, December 1962. (FIGHTER IV)
- 11 *Vigilance Performance as a Function of Task and Environmental Variables*, May 1963. (VIGIL IV)
- 12 *Avoidance of Commitment and Need for Closure as Determinants of Behavior in Decision Situations*, June 1963. (CAREER III)
- 13 *FORECAST Systems Analysis and Training Methods for Electronics Maintenance Training*, May 1964. (FORECAST)
- 14 *Programed Instruction and Low Altitude Aerial Observation*, December 1964. (OBSERVE II)
- 15 *Identification of Electronics Maintenance Training Requirements: Development and Evaluation of an Experimental Ordnance Radar Repair Course*, December 1964. (NICORD)

Special Reports

- 1 *Survey of the Educational Program of The Artillery School, Antiaircraft and Guided Missiles Branch, Fort Bliss, Texas*, December 1952. (SCOPE)
- 2 *Psychological Warfare Research: A Long Range Program—Part One, Essential Background Information*, March 1953.
- 3 *Medical Officers' Opinions on Professional and Personal Problems of Army Service*, July 1953. (MEDICORPS)
- 4 *A Survey of the Basic Airborne Training Course at Fort Benning, Georgia*, April 1955.
- 5 *Factors Affecting Credibility in Psychological Warfare Communications*, July 1956. (CHATTER)
- 6 *The AAFCS M-33 Operator: A Manual of Operating Procedures*, August 1956. (RADAR V)
- 7 *Determinants of Loyalty and Disaffection in Chinese Communist Soldiers During the Korean Hostilities: An Exploratory Study*, October 1956. (TICK I)
- 8 *Studies Made by Human Research Unit Nr. 1, CONARC During Project STALK: Part I—Results of Interviews With the STALK Crew Members*, June 1957. (STALK I)
- 9 *Simplification of the Panel Layout on Standard Series Tank Radios*, July 1957. (ARMORCOM I)
- 10 *Procurement of Counter Intelligence Corps Trainees*, October 1957. (CINCO I)
- 11 *A Survey of Human Factors in Military Night Operations (With Special Application to Armor)*, November 1957. (ARMORNITE)
- 12 *Illumination and Terrain as Factors Affecting the Speed of Tank Travel*, March 1958. (ARMORNITE I)
- 13 *FIGHTER I: A Study of Effective and Ineffective Combat Performers*, March 1958. (FIGHTER I)
- 14 *An Evaluation of the On-the-Job Proficiency of Trained Tank Crewmen*, June 1958. (SHOCKACTION IV)
- 15 *The Achievement of Active-Duty and Reserve Tank Crewmen in Areas of Essential Armor Knowledge*, November 1958. (SHOCKACTION III)

Research Bulletins

- 1 *What HumRRO Is Doing*, March 1954.
- 2 *What HumRRO Is Doing*, March 1955.
- 3 *What HumRRO Is Doing*, 1955, April 1956.
- 4 *What HumRRO Is Doing*, January 1956 - June 1957, December 1957.
- 5 *What HumRRO Is Doing*, July 1957 - June 1958, December 1958.
- 6 *HumRRO Presentations to Third Meeting of NIKE ZEUS Training Panel, Ordnance Guided Missile School, Redstone Arsenal*, November 1959.
- 7 *What HumRRO Is Doing*, July 1958 - June 1959, April 1960.
- 8 *What HumRRO Is Doing*, August 1961.
- 9 *What HumRRO Is Doing*, September 1962.
- 10 *Vigilance: A Guide to Improved Performance*, November 1963. (VIGIL IV)
- 11 *The Development of Training Objectives*, June 1964.

Appendix B

WORK UNITS BY DIVISION¹

Director's Office

COLDSPOT—Human Factors in Military Performance in Extreme Cold Weather

PIONEER—Development of Methods and Concepts for Training and Motivation Research (Subtasks were assigned to various Divisions)

SPECIAL—Training in Special Warfare, Counter-Insurgency and Related Missions

TRADER—Developing Guidance for Establishing Requirements and Characteristics of Training Devices (Subtasks were assigned to various Divisions)

Division No. 1 (System Operations)

ANSCALE—Development of an Anxiety Scale for Use in Army Training Research

CINCO—Procurement, Classification, and Training Problems at the Army Intelligence School

CLASSIC—A Program of Research on the Activities and Training of Guided Missiles Personnel

COLDSPOT—Human Factors in Military Performance in Extreme Cold Weather

CONTACT—Development of Training Procedures for Faster Acquisition of Perishable Tactical Information From Non-English-Speaking Prisoners of War

FICON—A Study of the Activities of Ordnance Fire-Control Maintenance Personnel in the Field and the Relationship Between These Activities and Training

FORECAST—Development of a Method of Forecasting Training Demands Imposed by New Electronic Weapon Systems

INTACT—Integrated Contact/Instrument Training

JOBTRAIN—Development of a Method for Building Training Programs for Signal Corps Electronics Repairmen

KNOWHOLD—The Assessment of Military Knowledge at Different Stages of the Career Cycle

LIFT—Army Aviation Helicopter Pilot Training

LIMIT—Adapting Service School Courses for Enlisted Men With Minimal Qualifications

LOCK-ON—Training of Guided Missiles Operator Personnel

METHOD—Research for Programed Instruction in Military Training

MOSAIC—Studies on Organization and Operation of Electronic Maintenance Units

NICOPD—Training of Ordnance Guided Missile Maintenance Personnel

OBSERVE—Improved Methods for Training Aerial Surveillance Personnel

OVERDRIVE—Analysis of Training Requirements for Operation of an Amphibious Ground Effect Machine

POLICY—An Analysis of Committee Problem-Solving Techniques at the National War College

PRESSURE—An Experimental Study of the Relationship Between Anxiety Level and Performance in a Military (Rifle Firing) Situation

PROTECT—The Performance of Military Personnel Wearing Protective Masks

¹Work Units that have been transferred from one Research Division to another are listed under both Divisions.

RADAR—Training of Radar Operators and Maintenance Personnel
RADOP—Improvement of Student Performance in Radio Operation Courses
REPAIR—Training of Electronics Maintenance Personnel
SCOPE—Survey of the Educational and Training Programs of the AA and GM Branch, the Artillery School, Ft. Bliss, Texas
STINTRAC—Training of Scientific and Technical Information System Personnel
TRACE—Development of Improved Electronic Trouble Shooting Procedures and Teaching Methods
TV—Evaluation of Television in Army Training

Division No. 2 (Armor)

APTITUDE—Basic Training Achievement in Infantry Squads With Controlled Aptitude
ARMORCOM—Improvement of the Communications Proficiency of Armor Personnel
ARMORNITE—Human Factors in Armor Operations Under Conditions of Limited Visibility
ARSUR—A Survey of Training Problems in Armor
FIREPOWER—Methods for Improving Performance in Tank Gunnery
FLINCH—The Effect of Flinch Upon M1 Rifle Marksmanship
GUNNERY—Conservation of Tank Ammunition Through an Improved Training Method: Subcaliber Substitution
MAPREADING—Assessment of Effectiveness of Basic Map-Reading Training
MAPUSING—The Mapusing Proficiency of Army Personnel
MOBILITY—Methods for Improving Vehicle Maintenance
PROFICIENCY—Proficiency Testing: The Development of Performance Proficiency Tests for Basic Trainees
RADEV—A Comparison of the Training Effectiveness of the Stereo Range Finder Device OROPT-TI and the Tank-Mounted Range Finder
RANGEFINDER—A Study of Training and Selection of Stereoscopic Range Finder Operators for Armor
RECON—Training Methods and Techniques for Improving Combat Readiness of the Armored Cavalry Platoon
SHOCKACTION—Evaluation and Improvement of Individual Training for Tank Crewmen
SPANOCON—Human Factors Influencing Span of Control Within Military Organizations
STALK—The Time Required to Achieve a Hit With the Main Armament of Several U.S. Tanks in Their Present State of Development
TANKER—Improved Methods for Training Tank Commanders
TRACK—The Training Effectiveness of the Track and Suspension Trainer Device
TRAINER—An Evaluation of the Prototype Model of a Tank Hull Trainer
TRIGGER—Monitoring on M1 Training Program Designed to Reduce Flinching
UNIT—Evaluation and Improvement of Tank Platoon Training
VISION—Evaluation of an Experimental Armed Forces Vision Tester
WHOLEPART—A Comparison of the Whole and Part Methods of Marksmanship Training

Division No. 3 (Recruit Training)

AAA—Factors Affecting Efficiency and Morale in Antiaircraft Artillery Batteries
BASICTRAIN—Improved Training Procedures for Basic Combat Training (ATP 21-114)
CAREER—The Army as a Career for Existing and Potential Qualified Personnel
CENTER—Improvement of Effectiveness of Basic Combat Training Graduates
DECISION—Factors Influencing Command and Tactical Decision Making
DESERT ROCK V—Psychological Study of Troop Reactions at an Atomic Explosion
ENDORSE—Effects of Controlled Isolation on Performance

FIGHTER—Factors Related to Effectiveness and Ineffectiveness of Individuals in Combat

INTERSQUAD—A Study of the Factors Which Account for the Differences Between Effective and Ineffective Rifle Squads

NCO—Research in Support of Training of Potential Noncommissioned Officers

OCS—An Investigation Into the Characteristics of Qualified Applicants for Officer Candidate Schools and the High Attrition in These Schools

OFFTRAIN—Studies in Leadership and Leadership Training

QUIZ—Psychological Techniques for Facilitating and Countering Interrogative Processes

RAID—Methods for Improving the Effectiveness of Small Groups Under Stress

RIFLEMAN—Improvement of the Combat Proficiency of the Light Weapons Infantryman

SWINGSHIFT—Techniques and Training Methods for Improving Individual and Squad Infantry Performance in Operations During Limited Visibility

UNIROTE—A Study of Combat Arms Unit Rotation

Division No. 4 (Infantry)

BASICTRAIN—Improved Training Procedures for Basic Combat Training (ATP 21-114)

HIGHLEAD—Training for Leadership at Senior Levels of Command

HILO—An Experimental Study of Habituation to Height at the Mock Tower

LEAD—Development of Training for Improving the Combat Skills of Leaders in Small Infantry Units

MOONLIGHT—Improved Methods for Training the Soldier Under Limited Visibility Conditions

OFFTRAIN—Studies in Leadership and Leadership Training

PATROL—Methods for Increasing Accuracy, Extent, and Reliability of Information Obtained From Reconnaissance Patrols

PLATTRAIN—Experimental Development of Procedures and Methods Designed to Improve the Tactical Proficiency of the Rifle Platoon

RIFLEMAN—Improvement of the Combat Proficiency of the Light Weapons Infantryman

ROCOM—Development of Methods and Techniques for Improving the Output of ROTC

SQUADTRAIN—Use of the Rifle Squad Field Problem for the Evaluation and Improvement of the Tactical Training of the Infantry Rifle Squad

SWINGSHIFT—Techniques and Training Methods for Improving Individual and Squad Infantry Performance in Operations During Limited Visibility

TRAINFIRE—Experimental Development of Improved Proficiency Tests and Training Methods for Improving the Effectiveness of Combat Riflemen

UNIFECT—Procedures for Increasing the Effectiveness of Small Infantry-Type Units

Division No. 5 (Air Defense)

ACHILLES—An Evaluation of the Maintenance Proficiency of Fire Control System Technicians

INGO—Methods for Deriving Instructional Objectives

MAINTRAIN—Maintenance Proficiency and Its Relation to Training Procedures for Guided Missile Personnel

RADAR—Training of Radar Operators and Maintenance Personnel

RINGER—Fidelity Requirements for Training Devices

SAMOFF—Systematic Analysis of Training Requirements and Procedures for Surface-to-Air Missile Battery Officers

TEXTTRACT—Methods of Instruction in Technical Training

UPSTREAM—Procedures for Anticipating Training Requirements for Future Air Defense Guided Missile Systems

VIGIL—Methods and Techniques for Improving Performance of Air Defense Missile Operator Personnel

Division No. 6 (Aviation)

ECHO—Synthetic Flight Training Programs and Devices
HELFIRE—Methods for Improving Training and Performance in Aerial Firepower Systems
INTACT—Integrated Contact/Instrument Training
LIFT—Army Aviation Helicopter Pilot Training
LOWENTRY—Methods for Improving Navigation Training for Low-Level Flight
OBSERVE—Improved Methods for Training Aerial Surveillance Personnel
REFLECT—Flight Trainer Requirements in Army Aviation Pilot Training
ROTOR—Design of Rotary Wing Training Devices

Division No. 7 (Language and Area Training)

AREA—Development of Concepts and Techniques for Area Training
CIVIC—Guidelines for Civic Action Advisors
CONTACT—Development of Training Procedures for Faster Acquisition of Perishable Tactical Information From Non-English-Speaking Prisoners of War
CULTECH—Technical Training Across Cultural Barriers
MALT—Construction and Evaluation of a Short, Automated Vietnamese Language Course

Motivation, Morale, and Leadership Division

ACCIDENT—Studies of Morale and Motivation Factors Influencing Effectiveness of Individual Soldiers: Off-Duty Driver Accidents
ADCIWA—Studies of Psychological Adjustment to the Requirements of Military Life: Factors in Recruits' Adjustment
DESERT ROCK I—Factors Influencing Performance of Troops Exposed to an Atomic Shot
DESERT ROCK IV—Factors Influencing Performance of Troops Exposed to an Atomic Shot
JUMPBOOT—An Investigation Into Causes and Methods of Overcoming Attrition in the Army Airborne Training Program
MEDICORPS—Research on Career and Recruitment Problems of the Army: Opinion Survey of Army Medical Men
ORIENT—Orientation Procedures for Airborne Trainees
READ—Studies of Morale and Motivation Factors Influencing Effectiveness of Individual Soldiers: Evaluation of the Basic Education Program
SCALO—A Further Study of Linear Segments Technique of Scalogram Analysis Including the Problem of Reliability
STIR—A Study of Factors Contributing to Delinquency in the Army
VOLAIR—A Study of the Comparison of Basic Trainees (Non-Airborne Volunteers) and Airborne Volunteers on Demographic, Attitude, and Personality Characteristics
WIGWAG—Survey of a Technical Training School
YUCCA—Reactions of Troops at an Atomic Maneuver: (a) Study of Palmar Sweating; (b) Information and Attitudes of Troops at DESERT ROCK V.

Psychological Warfare Division

ACROSS-RETURN—Evaluation of Effects of Intercultural Contact Between U.S. Army Personnel and Their Dependents and Foreign Nationals
CHATTER—Factors Contributing to the Gaining of Attention, Understanding, and Credibility in Communications
COMPRAC—Preliminary Investigation of Communication Practices in Pre-Maneuver and Maneuver Situations

GAMBIT—Identification of Personnel Characteristics for Evaluating Special Forces Training
KAZPO—A Study of the Vulnerabilities of the Kazakh Population
MELITE—Pilot Research on a Comparative Study of Military and Scientific Leaders in Selected Countries
PSYFREE—Communist Indoctrination and Use of Prisoners of War for Psychological Warfare Operations
PSYJOB—Determination of Training Requirements for Propaganda Personnel
RIM—Research on Methods of Interviewing Foreign Informants
TICK—A Study of Communist Motivation
TREBLE—Exploratory Survey of Music as Used in Propaganda

Indexes

AUTHOR INDEX

- Abelson, H.I. 27, 53
 Ammerman, H.L. 56, 115
 Anderson, E.N. 64
 Anderson, H.E., Jr. 100, 142
 Anderson, J.C. 28
 Anneser, R.E. 65
 Arbit, J.A. 37, 152
 Arnold, R.D. 104
 Atkinson, R.C. 88
 Baerman, D.J. 53, 77, 118
 Bailey, C.J. 18
 Baker, R.A. { 94, 105, 118, 119, 136, 147, 162,
 163, 164, 165, 166, 169, 170, 171
 Baldwin, R.D. { 35, 95, 99, 100, 138,
 139, 140, 141, 142
 Bancroft, C.A. 49, 53, 101
 Barch, A.M. 99
 Barlow, C. 84
 Battrick, W.T. 162
 Beals, A. 23
 Beckwith, H.S. 53, 97
 Beecroft, R.S. 65
 Beezer, R.H. 111
 Behringer, R.D. 147
 Benson, S.B. 41
 Bergum, B.O. 138, 139, 140, 141, 162, 163, 168
 Berkun, M.M. 42, 43, 44, 45, 46, 47, 48, 154, 155, 162, 167
 Bernardo, R. 103
 Bernstein, A.J. 107
 Bernstein, B.B. 77
 Berry, J.L. 44, 45, 46
 Bialek, H.M. 26, 43, 44, 45, 46, 47, 98, 168
 Birdsall, J.E. 51
 Bjorklund, J.F. 154
 Blum, R. 159
 Bordes, P.A. 34
 Boren, L.M. 111, 165
 Boutwell, J. 134
 Bradbury, W.C., Jr. 127
 Bright, H.F. 162
 Brown, C. 41, 42, 43, 123
 Brown, F.L. 91, 109
 Brown, G.H. 33, 99, 107, 108
 Brown, R.L. 148, 149
 Brown, W.F. 114, 167
 Burday, G. 37, 152
 Burdick, H.A. 25, 103, 154, 155, 163
 Burnstein, D.D. 49, 50, 154
 Butler, P.J. 83
 Cahalan, D. 74
 Campbell, V.N. 88
 Cannon, L.D. 49, 120, 148, 154
 Capretta, P.J. 44, 46, 47
 Carlson, E.R. 27
 Caro, P.W., Jr. 36, 84
 Carter, L.F. 167
 Chambliss, D.J. 138
 Chreitzberg, J. 123
 Christensen, H.E. 126
 Cianci, S.N. 92, 168
 Cisin, I.H. 162, 167
 Claflin, J.L. 141
 Clark, R.A. 58
 Cline, V.B. 23, 41, 42, 43, 135
 Cobb, B.B. 167
 Cogan, E.A. 71, 72, 73, 171
 Coleman, E.B. 169
 Colgan, C.M. 64
 Cook, J.G. 105, 119, 136
 Cooper, LTC D. 157, 168
 Cooper, J.O. 130
 Cox, J.A. 56, 111, 125, 126, 129, 157, 165
 Crawford, M.P. { 162, 163, 167, 168,
 169, 170, 171, 172
 Czeh, R.S. 39
 Danielian, J. 16
 Darby, C.L. 114, 125
 Dawkins, P.B. 85
 Deane, G.E. 37
 DeBurger, R.A. 18
 Demaree, R.G. 68, 167
 Denenberg, V.H. 71, 128, 129, 132, 144, 159
 Desiderato, O.L. 133
 Deveney, K.L. 84
 Dressel, R. 143
 Drucker, E.H. 148, 165
 Duffy, J.O. 64
 Duryea, R.A. 23
 Easley, D.L. 19, 20, 21
 Eckles, A.J. III 53, 121
 Edmonds, E.M. 67
 Egbert, R.L. 40, 41, 42, 43
 Eliasson, LTC A.H. 57, 63, 67, 84, 163
 Elkin, A. 24

Evans, G.W. 141
 Fightmaster, W.J. 114
 Fiks, A.I. 70
 Finan, J.L. 34, 162, 163, 168
 Findlay, D.C. 15, 72, 73
 Fink, C.D. 51, 52, 122, 169
 Fink, R. 90
 Floyd, A., Jr. 124, 163, 169
 Follettie, J.F. 24, 91, 153
 Fooks, N.I. 109, 110, 130
 Forbes, L.M. 37, 152
 Forgy, E.W. 41, 42, 43
 Foster, R.J. 16, 28
 Frederickson, E.W. 141
 Froehlich, D.K. 147
 Galloway, W.D. 148, 149
 Gardner, R.A. 114
 Garvey, C.C. 32
 Gebhard, R. 59
 George, C.E. 134
 Gildersleeve, K.R. 148
 Gillson, P. 79
 Goffard, S.J. 26, 65, 102, 104, 153, 170
 Gordon, D.A. 18, 163
 Goss, A.E. 18
 Gray, G. 90
 Gray, T.H. 67
 Green, E.J. 21
 Greer, G.D., Jr. 22, 23, 24, 40, 63, 84
 Griggs, G.D. 163, 169
 Grodsky, M.A. 167
 Grubb, J.W. 72
 Haas, P.M. 38, 152
 Haqqard, D.F. 49, 50, 77, 99, 153
 Haid, MAJ D.J. 54
 Hall, C.E. 92, 168
 Hall, M.J. 19
 Hammes, J.A. 130
 Hammock, J.C. 14, 39, 93, 99, 168
 Hampton, G.L. III 38, 103, 152
 Harris, J.S. 69
 Hatfield, CPT J.L. 63
 Hausknecht, R.O. 143, 145
 Haverland, E.M. 114, 115, 116
 Hayes, J.F. 122
 Heilmann, J.C. 143, 145
 Heimstra, N.W. 63, 65
 Hesson, J.M. 84, 85
 Heyl, A.A. 167
 Hibbitts, F.L. 79
 Hicks, J. 152, 153
 Hield, W. 123
 Hitchcock, L., Jr. 68, 100
 Hitt, J.D., Jr. 138, 168
 Hoak, G.R. 134
 Hochstim, J.R. 34
 Hoehn, A.J. 59, 169
 Hoke, S. 39
 Holmen, M.G. 86, 87
 Hood, J.J. 98
 Hood, P.D. 80, 81, 82
 Hunter, H.G. 147, 149

Isley, R.N. 36
 Jackson, M.A. 20
 Jacobs, M. 13
 Jacobs, T.O. 62, 89
 Johnson, R.H. 163
 Jolley, O.B. 57, 64
 Jones, A.M. 86, 87
 Jones, F.E. 78, 131, 151
 Jones, R.J. 27, 171
 Jwaideh, A. 30
 Kandel, E.J. 37, 152
 Kanner, J.H. 133
 Katter, R.V. 40, 86, 87, 88
 Kelly, H.E. { 92, 109, 110, 123, 130,
 131, 162, 164, 165
 Kelsay, R.C. 49, 77
 Kerle, R.H. 43, 46
 Kern, R.P. 45, 47, 48, 80, 82
 Kessler, T. 148
 Kirkpatrick, J.J. 127
 Klein, I.C. 138
 Klores, M.S. 147
 Knox, R.E. 44, 45
 Kolstoe, R.H. 39, 83, 159
 Kovner, M. 96
 Kowal, B. 164, 170
 Kraemer, A.J. 16, 18, 19, 20
 Kubala, A.L. 126
 Kulp, R.A. 165
 Kurtz, K.H. 118
 LaMonaca, H.L. 45, 46
 Lange, C.J. 88, 89, 169, 170
 Leedy, H.B. 122
 Lehr, D.J. 139, 140, 141
 Levy, L. 51
 Lodge, R. 79
 Longano, A.A. 120
 Louis, N.B. 20, 63
 Luce, T.S. 157
 Lyons, J.D. 99, 169, 170, 172
 MacCaslin, E.F. { 51, 94, 118, 119, 144,
 169, 170, 171
 Mager, R.F. 68, 99, 100, 125
 Mathers, B.L. 17, 21, 118, 159
 Matyas, S.M. 15
 McClelland, W.A. 160, 164, 168, 169, 170, 172
 McClure, A.H. 59, 95
 McCrary, J.W. 70
 McCrystal, T.J. 24, 62
 McDonald, R.D. 38, 45, 46
 McFann, H.H. 34, 45, 46, 48, 130, 151, 162
 McGuigan, F.J. 72, 132, 144
 McKay, J.B. 92, 109, 168
 McKnight, A.J. 83, 90, 128, 147, 171
 McRae, A.V. 134
 Meeland, T. 40, 41, 42, 43, 44
 Melching, W.H. 56, 125, 126, 155
 Meyers, S.M. 127
 Michaelson, LTC F.J. 163
 Mighell, C.R. 130
 Miller, A.L. 20, 164, 171
 Miller, I. 41, 42

Walk, R.D. 60
 Walker, J.N. 41, 42, 43, 98
 Waller, T.G. 67
 Ward, A.A. 130
 Ward, J.S. 55, 109, 110, 130, 162
 Ware, J.R. { 147, 163, 164, 165,
 166, 169, 170
 Wame, R.D. 84
 Wamick, W.L. 105, 119, 136
 Washburne, N.F. 29
 Watson, D. 123
 Weidenfeller, E.W. 164
 Weiss, W. 82
 Wheeler, L.S. 103
 Whipple, J.E. 99, 100
 White, B.W. 22, 35
 Whitmore, P.G., Jr. 12, 13, 56, 68, 125, 126
 Whittemore, J.M. 107
 Wight, A.R. 49
 Willard, N., Jr. 21, 49, 101, 104, 121, 170

Williams, W.L., Jr. 12, 13, 68, 137, 157, 169
 Willmorth, N.E. 21, 73
 Wilson, F.W. 22
 Windle, C.D. 55, 151, 159, 162
 Winick, D.L. 77
 Winograd, B. 12, 27, 34, 35
 Wischner, G.J. 61, 99
 Wolff, P.C. 49, 50, 154
 Wolpert, M.G. 22
 Wood, R.O., Jr. 111, 170
 Woodruff, A.B. 119
 Woolman, M. 66, 75
 Wright, A.D. 138, 139, 140, 141, 149
 Wright, R.H. 67, 170, 171
 Yagi, K. 44, 45, 46, 47
 Young, MAJ A.R. 63
 Young, J.S. 132
 Zaynor, W.C. 107
 Zinovieff, A. 31
 Zuckerman, J.V. 167

DESCRIPTION OF THE KWIC INDEX

A key-word-in-context (KWIC) index has been prepared as an added feature of this *Bibliography* and is based upon the information in Part II of the *Bibliography*.

Constructing the Index

The KWIC index is designed to provide a reasonably efficient means of searching a bibliography for references on a particular subject. The index is constructed by permuting and alphabetizing bibliographic titles on the basis of "key words"—those words in the title that present the greatest amount of subject-oriented content. Since titles typically contain several such key words, each title is listed separately for each key word occurring in the title. As the following example shows, a title containing four key words would be listed completely in four different places in the index depending on the alphabetic occurrence of the key words. The key words are aligned down the middle of the page for easy scanning; the remainder of the title is "wrapped around," following the key word and to its left. The endings of the titles are marked with virgules (/).

Example: (Each key word is underlined)

Title: An Annotated Bibliography on the Determination of Training Objectives

KWIC index entries:

ING OBJECTIVES//	AN ANNOTATED	BIBLIOGRAPHY ON THE DETERMINATION OF TRAIN
AN ANNOTATED BIBLIOGRAPHY ON THE	DETERMINATION OF TRAINING OBJECTIVES//	
ON THE DETERMINATION OF TRAINING	OBJECTIVES//	AN ANNOTATED BIBLIOGRAPHY
IOGRAPHY ON THE DETERMINATION OF	TRAINING OBJECTIVES//	AN ANNOTATED BIBL

Searching the Index

To search the index, one frames a search question and selects from it the key words. These key words are then sought in the alphabetical key word listing and the titles in which they occur are inspected for relevance. If inspection of the titles listed under the first-selected key words does not prove fruitful, then synonyms related to the topic under consideration will usually disclose useful titles. For instance, if the titles listed under "training" are not fruitful, such synonyms as "education," "curriculum," and "course" may provide the desired items.

When titles that appear relevant are found, the reference codes following each entry are used to locate the complete citations in the *Bibliography*. This reference code, new to this issue of the index, is keyed directly to the page numbers in Part II of this *Bibliography*. In all cases the page number—the first segment of the code—refers to the first page of the particular Work Unit or other research effort. Items under research efforts requiring several pages may be quickly located by the year designation at the end of each item.

The second segment of the code refers to the *Bibliography* section—B to F—in which the item is located. This allows the searcher to determine quickly whether the item results from

Work Unit	B
Exploratory Study	C
Basic Research Study	D
Technical Advisory Service	E
General	F

From the third segment of the code, the year, the searcher knows how recent the item is, and also can locate the item more quickly.

The last segment varies with the type of research effort to which the item is related. The Work Units are identified by not more than five letters of the code word, e.g., ACHIL = ACHILLES. The Exploratory Studies and the Basic Research Studies are identified by number (e.g., ES-20, BR-9). The last segment for Technical Advisory Service and General items is the place of the item in its chronological order.

Example of research code:

039/B/63/FIGHT Page 39, B section, year 1963, Work Unit FIGHTER.

113/C/66/ES-43 Page 113, C section, year 1966, Exploratory Study 43.

119/D/66/BR-11 Page 119, D section, year 1966, Basic Research Study 11.

130/E/65/03 Page 130, E section, year 1965, item 3 of the Technical Advisory Service items for 1965.

143/F/66/01 Page 143, F section, year 1966, item 1 of the General items for 1966 in the subsection starting on page 143.

It is important to remember that the page number refers only to the *first* page of a research effort or General subsection. The year can be used to locate the exact item.

The titles are not always listed in the index exactly as they are in the *Bibliography*. Because of space limitations of the computer printout, some long titles had to be edited; however, every effort was made to retain the original context.

The alphabetical ordering by subject content of the key words, and the replication of titles, make it possible to enter the KWIC index at any point and scan only those titles that contain concepts of current interest to the literature searcher.

GAIN IN INFORMATION IN THE DESERT ROCK
 TARGET DETECTABILITY ON AN
 VIDEO AMPLIFICATION// TARGET DETECTABILITY ON AN
 REFERENCES// TIME TO STUDY/ PROGRAM ERRORS// MEASURES OF
 THE INFLUENCE OF PRACTICE FRAMES AND VERBAL
 A TEST - RETEST STUDY OF TWO TESTS MEASURING MECHANICAL
 COURSE ACHIEVEMENT OF STUDENTS WITH UNSATISFACTORY
 OBSERVATIONS ON A NUMBER OF NONCOMMISSIONED OFFICER
 ARMY
 FOR SAFETY TRAINING/ TRAINING DEVICE/ DRIVER ATTITUDES/
 RIFLE SLING, AND WITHOUT A SLING//
 THE EFFECT OF TRAINING ON
 THE EFFECT OF TRAINING ON
 GROUP CONSENSUS AND JUDGMENTAL
 OF TEST RESULTS ON TEST PERFORMANCE AS FUNCTION OF NEED
 SS- INSTRUCTION CENTRALIZATION, THE TRAINING CURRICULUM AND
 TRAINING
 OF ESSENTIAL ARMOR KNOWLEDGE// THE
 LS// THE
 S IN BASIC ELECTRONICS/ APTITUDE// COURSE
 EFFECTS OF PROGRAMED INSTRUCTION RESPONSE ORIGIN AND FORM ON
 TARGET
 PARISON BETWEEN THE WHOLE METHOD AND THE PART METHOD IN THE
 EFFECTS OF TRAINING RESPONSE MODE, TEST FORM, AND MEASURE ON
 TH SUCCESSFUL AND UNSUCCESSFUL AMERICAN INFANTRY SMALL-UNIT
 FACTORS AFFECTING THE LEVEL OF BASIC MILITARY KNOWLEDGE OF
 RMOR KNOWLEDGE// THE ACHIEVEMENT OF
 BASIC MILITARY KNOWLEDGE IN THE
 FOR TRAINING//
 SURVEY OF OPERATIONAL FLYING
 // WEIGHTED SCORES, RANKS, C-SCALE SCORES OF EVALUATED
 SURVEY OF OPERATIONAL FLYING
 LEADERSHIP IN ARMY INFANTRY PLATOONS- STUDY II,
 ORDNANCE IFC ELECTRONICS MAINTENANCE- ANALYSIS OF
 ORDNANCE IFC ELECTRONICS MAINTENANCE- ANALYSIS OF FIELD
 E DETACHMENT ELECTRONICS MAINTENANCE PERSONNEL- ANALYSIS OF
 EPRIVATION//
 SOME PROBLEMS IN THE RELIABILITY OF THE
 A FILTER METHOD//
 OGICAL PARTICIPATION- STUDY OF CCF IN KOREAN WAR//
 THE CORRECTIVE ACTION QUESTIONNAIRE-- DEVELOPMENT AND
 ATION OF LIGHT WEAPONS INFANTRYMEN, MOS 111.0, GRADUATES OF
 AN IMPROVED
 INSTRUCTORS GUIDE -
 OGRAM OF INSTRUCTION// RIFLEMAN II- AN
 F PROGRAM IN THE REPUBLIC OF CHINA// AMERICAN
 SOME LANGUAGE ASPECTS OF THE U.S.
 THE EFFECT OF TRAINING ON ACCURACY OF ANGLE ESTIMATION/
 TRAINING RESEARCH ON LOW ALTITUDE VISUAL
 LOW ALTITUDE
 RESEARCH ON HUMAN
 RESEARCH ON HUMAN
 RESEARCH ON HUMAN
 A FIELD STUDY COMPARISON OF VISUAL SEARCH METHODS IN
 PROGRAMED INSTRUCTION AND LOW ALTITUDE
 LET S TAKE A LOOK AT THE BASIC SKILLS OF
 AUTOMATED EDUCATION IN THE TRAINING OF LOW ALTITUDE
 TRAINING MATERIALS FOR
 RESEARCH STRATEGY IN INVESTIGATING
 REVERSIBILITY OF THE
 NEED
 AN ANALYSIS OF
 AN ANNOTATED BIBLIOGRAPHY OF RESEARCH ON TRAINING
 DESIGN AND EVALUATION OF PRINTED JOB
 BROOKS/ TRAINING REQUIREMENTS// PERFORMANCE
 AN
 A COMPARISON BETWEEN VOLUNTEERS FOR THE
 EFFECTS OF FOUR ORIENTATION PROCEDURES ON
 A COMPARISON BETWEEN VOLUNTEERS WHO SUCCESSFULLY COMPLETE
 A SURVEY OF THE BASIC
 THE EFFECT OF NOCK TOWER HEIGHT IN
 EXPLORATION FOR GUTTMAN SCALES IN A STUDY OF
 A CRITICAL INCIDENT STUDY OF INFANTRY,
 A DISCUSSION OF U.S. ARMY
 TRAINING ORIENTED HUMAN FACTORS ENGINEERING OF ARMY
 ENGING THE VISUAL DETECTION AND RECOGNITION OF LOW-ALTITUDE
 HUMAN FACTORS IN THE
 RESEARCH ON
 SKILLS REQUIREMENTS FOR BASIC ELECTRONICS IN THE U.S. ARMY
 RESEARCH ON OPERATORS OF
 A BIBLIOGRAPHY ON THE ROLE OF
 LEADERSHIP CLIMATE FOR TRAINEE LEADERS- THE ARMY
 L AND PATROLLING PROGRAMS FOR THE LIGHT WEAPONS INFANTRYMAN/
 THE REVISION OF NIKE PLATOON LEADER JOB DESCRIPTIONS-
 A COMPARISON OF
 LOW
 AUTOMATED EDUCATION IN THE TRAINING OF LOW
 PROGRAMED INSTRUCTION AND LOW
 PROGRAMED LEARNING AND LOW
 TRAINING RESEARCH ON LOW
 ELD EXPERIMENTS// THE EFFECT OF INTERCESSION AND
 WHICH HAVE CONTRIBUTED TO BOTH SUCCESSFUL AND UNSUCCESSFUL
 SOME EFFECTS OF OVERSEAS DUTY ON THE ATTITUDES OF
 EXAMPLES OF CROSS-CULTURAL PROBLEMS ENCOUNTERED BY
 ADAR DISPLAY AS A FUNCTION OF HORIZONTAL AND VERTICAL VIDEO
 N AN A-SCOPE AS INFLUENCED BY VERTICAL AND HORIZONTAL VIDEO
 REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON
 INSTABILITY IN
 FIGHTER 1- AN
 A FACTOR
 A-BOMB MANEUVERS//
 A-SCOPE AS INFLUENCED BY VERTICAL AND HORIZONTAL VIDEO AMPLI
 A-TYPE RADAR DISPLAY AS A FUNCTION OF HORIZONTAL AND VERTICAL
 ABILITY AND PROGRAMED INSTRUCTION PERFORMANCE/ INDIVIDUAL DI
 ABILITY GROUPING IN ARMY BASIC COMBAT TRAINING//
 ABILITY ON PROGRAMED INSTRUCTION PERFORMANCE/ INDIVIDUAL DIF
 ABILITY//
 ACADENIC AVERAGES IN BASIC ELECTRONICS/ APTITUDE//
 ACADENIC//
 ACCIDENT REPORTING- RESULTS OF SOME EXPLORATORY INTERVIEWS//
 ACCIDENTS// AN EXPERIMENTAL EVALUATION OF A DRIVER SIMULA
 ACCURACY AND SPEED OF FIRE WITH IMPROVED LOOP SLING, COMBAT
 ACCURACY OF ANGLE ESTIMATION//
 ACCURACY OF ANGLE ESTIMATION/ AERIAL NAVIGATION TRAINING/ MA
 ACCURACY- EXTENSION OF THE ASCH EFFECT//
 ACHIEVEMENT AND TEST ANXIETY// EFFECT OF KNOWLE
 ACHIEVEMENT EVALUATION// BASIC TRAINING EFFECTIVENE
 ACHIEVEMENT IN BASIC COMBAT SQUADS WITH CONTROLLED APTITUDE/
 ACHIEVEMENT IN BASIC TRAINING//
 ACHIEVEMENT OF ACTIVE-DUTY AND RESERVE TANK CREWMEN IN AREAS
 ACHIEVEMENT OF FOREIGN STUDENTS IN U.S. ARMY TECHNICAL SCHO
 ACHIEVEMENT OF STUDENTS WITH UNSATISFACTORY ACADEMIC AVERAGE
 ACQUISITION AND RETENTION SCORES// AN EVALUATION OF THE F
 ACQUISITION FROM THE ARMED HELICOPTER// COM
 ACQUISITION OF A MOTOR SKILL, RIFLE MARKSMANSHIP// COM
 ACQUISITION OF SEMI-ORDERED FACTUAL MATERIALS// E
 ACTIONS// SOME FACTORS WHICH HAVE CONTRIBUTED TO BO
 ACTIVE ARMY ENLISTED PERSONNEL//
 ACTIVE DUTY AND RESERVE TANK CREWMEN IN AREAS OF ESSENTIAL A
 ACTIVE DUTY ARMY//
 ACTIVITIES OF FIELD RADIO REPAIR PERSONNEL WITH IMPLICATIONS
 ACTIVITIES OF FIXED WING AVIATORS//
 ACTIVITIES OF JDR DESCRIPTIONS OF NIKE AJAX BATTERY OFFICERS
 ACTIVITIES OF ROTARY WING AVIATORS//
 ACTIVITIES QUESTIONNAIRE//
 ACTIVITIES WITH IMPLICATIONS FOR TRAINING. PART I -- M-33//
 ACTIVITIES WITH IMPLICATIONS FOR TRAINING. PART II -- T-38//
 ACTIVITIES WITH IMPLICATIONS FOR TRAINING// ORDNANCE NIK
 ACTIVITY PATTERN AND RESTLESSNESS DURING SUSTAINED SENSORY D
 ADJECTIVE CHECKLIST//
 ADJUSTING PRI S//
 ADJUSTMENT OF CHINESE SOLDIERS TO COMMUNIST DEMAND FOR INFOL
 ADMINISTRATION TO OFFICERS AND NCOs/ RCT/ ATTITUDES//
 ADVANCED INDIVIDUAL TRAINING COURSE, ATP 7-17// EVALU
 ADVANCED INDIVIDUAL TRAINING PROGRAM FOR ARMOR//
 ADVANCED LAND NAVIGATION- A PROTO-TYPE COURSE//
 ADVANCED LAND NAVIGATION- DEVELOPMENT AND EVALUATION OF A PR
 ADVANCING SMALL ARMS TARGET//
 ADVISOR AND COUNTERPART ACTIVITIES IN THE MILITARY ASSISTANC
 ADVISORS OVERSEAS//
 ADVISORY ROLE IN SOUTH VIETNAM//
 AERIAL NAVIGATION TRAINING/ MAP READING//
 AERIAL OBSERVATION- A DESCRIPTION OF FIVE FIELD EXPERIMENTS/
 AERIAL OBSERVATION- AN EXPERIMENTAL COURSE OF INSTRUCTION//
 AERIAL OBSERVATION. PART I- SUMMARY//
 AERIAL OBSERVATION. PART II- DESCRIPTION OF TACTICAL FIELD T
 AERIAL OBSERVATION. PART III- SUMMARY DATA FROM TACTICAL FIE
 AERIAL OBSERVATION//
 AERIAL OBSERVERS//
 AERIAL OBSERVERS//
 AERIAL OBSERVERS//
 AERIAL OBSERVER INSTRUCTION IN BASIC VISUAL SKILLS//
 AERIAL OBSERVER PROBLEM //
 AERIAL SURVEILLANCE SYSTEMS TARGET DETECTION//
 AFTER-IMAGES OF AMBIGUOUS FIGURES//
 AGGRESSION MEASUREMENT//
 AGGRESSIVE BEHAVIOR//
 AIDS AND TRAINING DEVICES//
 AIDS FOR ELECTRONICS REPAIRMEN//
 AIDS FOR JUNIOR OFFICERS/ SAM BATTERY OFFICERS/ JOB AID/ HAN
 AINING POINT COMPARISON STUDY//
 AIRBORNE AND OTHER BASIC TRAINEES (NON-VOLUNTEERS)//
 AIRBORNE TRAINEES//
 AIRBORNE TRAINING AND THOSE WHO FAIL//
 AIRBORNE TRAINING COURSE AT FORT BENNING, GEORGIA//
 AIRBORNE TRAINING//
 AIRBORNE VOLUNTEERS//
 AIRBORNE, AND ARMORED JUNIOR NONCOMMISSIONED OFFICERS//
 AIRCRAFT ARMAMENT PROGRAM, 1 FEBRUARY 1963//
 AIRCRAFT//
 AIRCRAFT//
 AIR CUSHION VEHICLES (ACV)//
 AIR DEFENSE MISSILE OFFICERS//
 AIR DEFENSE SCHOOL// A STUDY OF MATHEMATICAL
 AIR DEFENSE SYSTEMS//
 AIR POWER IN GUERRILLA AND COUNTERGUERRILLA OPERATIONS//
 AIR PLATOON//
 AIR TRAINING// DEVELOPMENT OF IMPROVED RIFLE SQUAD TACTICA
 AJAX TO HERCULES//
 ALTERNATIVE SIGNIFICANCE TESTS//
 ALTITUDE AERIAL OBSERVATION- AN EXPERIMENTAL COURSE OF INSTR
 ALTITUDE AERIAL OBSERVERS//
 ALTITUDE AERIAL OBSERVATION//
 ALTITUDE OBSERVATION//
 ALTITUDE VISUAL AERIAL OBSERVATION- A DESCRIPTION OF FIVE FI
 ALTRUISTIC APPEALS UPON QUESTIONNAIRE RETURN RATES//
 AMERICAN ADVISORS OVERSEAS//
 AMERICAN INFANTRY SMALL-UNIT ACTIONS// SOME FACTORS
 AMERICAN TROOPS TOWARD HOST POPULATIONS//
 AMERICANS WORKING OVERSEAS- AN INSTRUCTORS HANDBOOK//
 AMPLIFICATION// TARGET DETECTABILITY ON AN A-TYPE R
 AMPLIFICATION// TARGET DETECTABILITY O
 AM TRANSMITTERS AND RECEIVERS/ TASK ANALYSIS//
 ANALOGUE-TYPE TARGET SIMULATORS//
 ANALYSIS OF COMBAT FIGHTERS AND NON-FIGHTERS//
 ANALYSIS OF CRITERION ORIENTED RATINGS//
 035/R/54/DESE-V
 138/R/62/VIGIL
 138/R/62/VIGIL
 155/D/63/BR-11
 015/D/56/APTIT
 155/D/66/BR-11
 040/R/59/FIGHT
 099/R/58/RADAR
 080/R/58/NCO
 012/R/54/ACCID
 147/C/66/ES-20
 130/R/54/TRAINF
 067/R/64/LOWEN
 047/R/65/LOWEN
 151/D/66/JR-6
 154/D/63/BR-10
 022/R/57/BASIC
 015/R/55/APTIT
 022/R/55/BASIC
 118/R/58/SHOCK
 033/R/65/CULTF
 099/R/58/RADAR
 062/R/63/LEAD
 054/R/62/HELFI
 144/R/54/WHOLF
 022/R/61/BASIC
 092/R/59/PLATT
 061/R/55/KNOWM
 118/R/58/SHOCK
 061/R/57/KNOWM
 104/R/58/REPAI
 063/R/62/LIFT
 114/R/59/SAMOFF
 063/R/62/LIFT
 088/R/60/OFFTR
 039/R/56/FICON
 039/R/57/FICON
 083/R/57/NICOR
 151/D/62/RR-6
 040/R/61/FIGHT
 138/R/63/VIGIL
 127/R/59/TICK
 024/R/66/CENTER
 109/R/62/RIFLE
 118/R/59/SHOCK
 109/R/63/RIFLE
 109/R/64/RIFLE
 109/R/59/RIFLE
 147/C/65/ES-2
 016/R/65/AREA
 070/R/63/MALT
 067/R/65/LOWEN
 084/R/62/OBSER
 084/R/62/OBSER
 084/R/60/OBSER
 084/R/60/OBSER
 084/R/60/OBSER
 084/R/59/OBSER
 084/R/64/OBSER
 084/R/61/OBSER
 084/R/64/OBSER
 084/R/62/OBSER
 084/R/61/OBSER
 084/R/58/OBSER
 167/F/62/07
 154/D/63/RR-10
 167/F/58/01
 159/F/57/02
 167/F/61/03
 114/R/65/SAMOFF
 130/R/59/TRAINF
 143/R/54/VOLAI
 090/R/53/ORLAI
 143/R/54/VOLAI
 150/F/55/02
 055/F/56/WILD
 143/R/54/VOLAI
 080/R/58/NCO
 054/R/63/HELFI
 167/F/64/10
 149/C/66/ES-44
 090/R/62/OVERD
 114/R/60/SAMOFF
 157/F/64/TAS
 138/R/60/VIGIL
 120/R/62/SPECI
 080/R/63/NCO
 109/R/65/RIFEM
 114/R/60/SAMOFF
 167/F/58/03
 084/R/62/OBSER
 084/R/64/OBSER
 084/R/64/OBSER
 084/R/63/OBSER
 084/R/62/OBSER
 114/R/59/SAMOFF
 016/R/65/AREA
 092/R/59/PLATT
 013/R/54/ACROS
 016/R/65/AREA
 138/R/62/VIGIL
 104/R/56/REPAI
 138/R/61/VIGIL
 040/R/57/FIGHT
 084/R/54/DOS

NUMBERS//
 OT TRAINING/ SIMULATION/ VISUAL CUES// A REVIEW OF THE
 LECTON OF COURSE CONTENT// THE DERIVATION,
 AL IMPLEMENTATION OF THE FORECAST METHODS OF TASK AND SKILL
 DEVELOPMENT AND TEST OF A NEW METHOD OF SKILL AND KNOWLEDGE
 A STUDY OF LEADERSHIP IN ARMY INFANTRY PLATOONS, JOB
 JOBS FOR ONE IN ELECTRONIC MAINTENANCE/ ELECTRONIC SYSTEMS
 THE EFFECT OF TRAINING ON ACCURACY OF
 THE EFFECT OF TRAINING ON ACCURACY OF
 HUMAN FACTORS IN CIVIC ACTION- A SELECTED

EQUIPMENT//
 UNCONVENTIONAL WARFARE- AN
 ANNOTATED BIBLIOGRAPHY ON THE TROUBLESHOOTING OF ELECTRONIC
 ANNOTATED BIBLIOGRAPHY OF PAPERBACK BOOKS//
 ANNOTATED BIBLIOGRAPHY ON THE AUTOMATION OF INSTRUCTION//
 ANNOTATED BIBLIOGRAPHY OF RESEARCH STUDIES IN AVIATION MECHA
 ANNOTATED BIBLIOGRAPHY OF RESEARCH ON TRAINING AIDS AND TRAI
 ANNOTATED BIBLIOGRAPHY ON PROFICIENCY MEASUREMENT FOR TRAINI
 ANTICRAFT AND GUIDED MISSILES BRANCH//
 ANTI-COMMUNIST- AN AUTOBIOGRAPHICAL ACCOUNT OF CHINESE COMMU
 ANXIETY AND ANXIETY AND SITUATIONAL STRESS//
 ANXIETY AND SITUATIONAL STRESS//
 ANXIETY AND SITUATIONAL STRESS ON M-1 RIFLE FIRING//
 ANXIETY SCALES FOR USE IN ARMY TRAINING RESEARCH//
 ANXIETY// EFFECT OF KNOWLEDGE OF TEST RESULTS O
 APPARATUS FOR CLASSROOM OR EXPERIMENTATION//
 APPEARANCE FIDELITY OF TRAINING DEVICES FOR FIXED-PROCEDURES
 APPLICANTS//
 APPLICATION AND TEST OF THE FORECAST CONCEPT OF ELECTRONICS
 APPLICATION OF EXPERIMENTAL STEALTH MEASURING DEVICE//
 APPLICATION OF SUBJECTIVE STRESS SCALE//
 APPLY FOR OCS//
 APPROACH-AVOIDANCE CONFLICT//
 ATTITUDE/ REMEDIAL EDUCATION/ MARGINAL PERSONNEL//
 ATTITUDE/ TRAINING//
 ATTITUDE//
 ATTITUDE// COURSE ACHIEVEMENT OF STUDENTS
 AREA TRAINING/ CROSS-CULTURAL COMMUNICATION//
 AREA TRAINING// CROSS-CULTURAL PROBLEM
 AREA TRAINING//
 ARMAMENT PROGRAM, 1 FEBRUARY 1963//
 ARMED FORCES VISION TESTER//
 ARMED HELICOPTER//
 ARMOR BATTLEFIELD//
 ARMOR BATTLEFIELD//
 ARMOR COMBAT DECISIONS GAME//
 ARMOR KNOWLEDGE//
 ARMOR NIGHT GUNNERY//
 ARMOR SKILLS AT NIGHT//
 ARMOR SKILLS//
 ARMOR SKILLS// THE EFFECTS OF INCREASING
 ARMOR SKILLS// THE EFFECTS OF INCREASING
 ARMOR TRAINING MANAGEMENT//
 ARMOR TRAINING PROBLEMS//
 ARMOR UNITS OF SEVENTH UNITED STATES ARMY//
 ARMOR UNITS (I)///
 ARMOR// A SURVEY OF HUMAN FACTOR
 ARMOR//
 ARMOR//
 ARMOR// A STUDY OF TRAINING
 ARMOR//
 ARMORED CAVALRY PLATOONS//
 ARMORED CAVALRY PLATOON PERSONNEL//
 ARMORED DIVISION//
 ARMORED INFANTRY BATTALION TO AN ATOMIC BOMB MANEUVER//
 ARMORED JUNIOR NONCOMMISSIONED OFFICERS//
 ARMY AIRCRAFT ARMAMENT PROGRAM, 1 FEBRUARY 1963//
 ARMY DELINQUENT//
 ARMY INFANTRY PLATOONS, JOB ANALYSIS//
 ARMY INFANTRY PLATOONS- STUDY II, ACTIVITIES QUESTIONNAIRE//
 ARMY LIFE//
 ARMY OFFICER CANDIDATE SCHOOLS OCS//
 ARMY POWS IN KOREA//
 ARMY PW S IN KOREA//
 ARMY RESEARCH IN HUMAN FACTORS//
 ARMY TRAINING- WHAT HUMANO RESEARCHERS ARE DOING, 1961//
 ARMY/ ATTITUDE/ TRAINING//
 ARMY//
 ARMY//
 ARTILLERY SCHOOL, ANTICRAFT AND GUIDED MISSILES BRANCH//
 ASCM EFFECT//
 ASPECTS IN FOREIGN LANGUAGE TRAINING//
 ASSESSMENT OF COMPARATIVE PERFORMANCE//
 ASSESSMENT OF OVERSEAS PERSONNEL//
 ASSESSMENT PROGRAM FOR OCS APPLICANTS//
 ASSESSMENT PROGRAM OCS//
 ASSESSMENT PROGRAM//
 ASSESSMENT STUDY AREA OF NCO II//
 ASSESSMENT//
 ASSOCIATIONS//
 ASSOCIATION- THE ROLE OF TEMPORAL FACTORS//
 ASSUMPTION OF COMMAND//
 ATFA-1 ARMORED DIVISION//
 ATCM GUNNER TRAINING PROGRAMS//
 ATOMIC BOMB MANEUVER//
 ATOMIC EFFECTS-DESERT ROCK IV//
 ATOMIC EXERCISES//
 ATOMIC EXPLOSION-ADDITIONAL DATA RELATED TO ATTRITION//
 ATOMIC EXPLOSION//
 ATOMIC FOXHOLE//
 ATOMIC MANEUVERS//
 ATOMIC MANEUVER//
 ATOMIC TEST SHOT//
 ATOMIC WAR//
 ATP 21-114, (14 NOVEMBER 1954)///
 ATP 21-114//
 ATP 7-17// EVALUATION OF LIGHT WEAPONS INFANTRYMEN, M

083/B/63/NICOR
 125/B/61/TEXT
 159/F/53/O2
 113/B/66/ROTOR
 054/R/66/INGO
 051/B/61/FOREC
 051/R/60/FOREC
 088/B/58/OFFTR
 051/B/65/FORECA
 067/B/65/LOWENT
 067/B/64/LOWEN
 028/B/63/CIVIC
 064/R/62/MAINT
 120/B/62/SPECT
 125/B/59/TEXT
 159/F/57/O1
 159/F/57/O2
 159/F/64/O1
 117/B/52/SCOPE
 127/B/54/TICK
 093/B/54/PRESS
 093/B/54/PRESS
 093/B/54/PRESS
 014/R/54/ANSCA
 154/D/63/RR-10
 151/D/62/RR-6
 111/B/65/RINCE
 086/R/56/OCS
 157/E/65/IAS
 091/R/59/PATRO
 040/R/58/FIGHT
 086/R/54/OCS
 162/F/57/O2
 026/B/66/CENTER
 104/R/55/READ
 015/R/55/APTIT
 099/R/54/RADAR
 016/R/65/AREA
 016/R/64/AREA
 016/R/66/AREA
 054/R/63/HELFI
 143/R/54/VISIT
 054/R/62/HELFI
 136/R/63/UNIT
 136/R/60/UNIT
 136/R/62/UNIT
 118/R/58/SHOCK
 018/R/59/ARMORN
 018/R/61/ARMORN
 118/R/59/SHOCK
 118/R/59/SHOCK
 162/F/59/O2
 021/R/55/ARSHIP
 018/R/61/ARMORN
 136/R/61/UNIT
 018/R/57/ARMORN
 021/R/56/ARSHIP
 077/R/59/MORAL
 104/R/57/RANGE
 118/R/57/SHOCK
 105/R/63/PECON
 105/R/64/PECON
 159/F/55/O3
 034/R/53/DESE-IV
 080/R/58/NCO
 054/R/63/HELFI
 011/R/56/AAA
 088/R/58/OFFTR
 088/R/60/OFFTR
 014/R/54/ARSHIP
 086/R/54/OCS
 096/R/57/PSYFR
 096/R/57/PSYFR
 167/F/60/O1
 162/F/61/O6
 104/R/55/READ
 061/R/57/KNOWH
 104/R/56/READ
 117/R/52/SCOPE
 151/D/66/RR-6
 070/R/65/MALT
 011/B/54/AAA
 016/R/66/AREA
 066/R/56/OCS
 066/R/55/OCS
 040/R/57/FIGHT
 080/R/63/NCO
 124/R/63/TANKE
 065/R/56/LIMIT
 162/F/65/O3
 055/B/64/HIGHL
 159/F/55/O3
 069/R/62/FIRFP
 034/R/53/DESE-IV
 034/R/53/DESE-IV
 035/R/53/DESE-V
 034/R/53/DESE-I
 162/F/56/O1
 034/R/54/DESE-IV
 035/R/54/DESE-V
 040/R/58/FIGHT
 162/F/58/O1
 022/R/59/NASIC
 022/R/56/NASIC
 109/R/62/RIFLE

THE ROLE OF EXPERIMENTER
 ROCK V// RELATION BETWEEN INFORMATION GAIN AND A TECHNIQUE FOR STUDYING
 ION AND SOCIAL ISOLATION ON SELF-EXPOSURE TO PROPAGANDA AND A TECHNIQUE FOR STUDYING
 // THE USE OF THE O-SORT FOR COLLECTING
 SOME EFFECTS OF OVERSEAS DUTY ON THE
 IVER SIMULATOR FOR SAFETY TRAINING/ TRAINING DEVICE/ DRIVER
 - DEVELOPMENT AND ADMINISTRATION TO OFFICERS AND NCOS/ BCT/
 TM IMPLICATIONS FOR COMBAT TRAINING/ CONFIDENCE AND DESPAIR
 PREDICTION OF FLIGHT TRAINING
 RESEARCH ON MOTIVATION AND
 G DEVICE/ TRAINING TRANSFER// REDUCTION OF HELICOPTER PILOT
 PERFORMANCE FOLLOWING SYNTHETIC HELICOPTER FLIGHT TRAINING/
 REACTIONS TO AN ATOMIC EXPLOSION-ADDITIONAL DATA RELATED TO
 VIGILANCE- A COMPARISON IN AUDITORY, VISUAL, AND COMBINED
 COMPARISON OF RANDOM PAIRS AND REAL PAIRS ON A SIMPLE
 EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN VISUAL AND
 BY CORRECT AND INCORRECT KNOWLEDGE OF RESULTS//
 THE COUNTING OF
 THE EFFECTS OF MISINFORMATION UPON THE COUNTING OF
 RECT AND INCORRECT KNOWLEDGE OF RESULTS ON ABILITY TO COUNT
 NOTES ONAM
 THE ROLE OF EXPECTANCY IN
 THE ROLE OF EXPECTANCY IN
 VIGILANCE- A COMPARISON IN
 THE EFFECTS OF
 RELATION OF INTELLIGENCE AND
 WANG TSUN-MING, ANTI-COMMUNIST- AN
 DESIGN OF A SHORT,
 RSERVERS//
 THE TEXT OF AN ORIENTATION WORKSHOP IN
 A HANDBOOK FOR PROGRAMMERS OF
 PRELIMINARY STUDIES IN
 HOW FAR SHOULD TRAINING BE
 THE M14
 AN ANNOTATED BIBLIOGRAPHY ON THE
 A PERSPECTIVE FOR THE TRAINING MANAGER ON THE
 AN APPROACH TO
 TRONICS COURSE// EVALUATION OF AN
 ANNOTATED BIBLIOGRAPHY OF RESEARCH STUDIES IN
 TRAINING REQUIREMENTS INFORMATION IN THE DESIGN AND USE OF
 LET S TAKE A LOOK AT
 AP-OF-THE-EARTH FLIGHT//
 SURVEY OF OPERATIONAL FLYING ACTIVITIES OF FIXED WING
 SURVEY OF OPERATIONAL FLYING ACTIVITIES OF ROTARY WING
 OF BEHAVIOR IN DECISION SITUATIONS//
 TIVITY// THE EFFECT OF
 SITUATION AND PERSONAL VARIABLES IN
 WARFARE RESEARCH- A LONG RANGE PROGRAM-PART ONE, ESSENTIAL
 WARFARE RESEARCH- A LONG RANGE PROGRAM-PART ONE, ESSENTIAL
 A STUDY OF
 EFFECT OF INTELLIGENCE AND RACE ON THE CORRELATION BETWEEN
 A SURVEY OF THE
 DEVELOPMENT OF PROFICIENCY TESTS FOR
 TRAINING
 TRAINING ACHIEVEMENT IN
 ABILITY GROUPING IN ARMY
 THE DEVELOPMENT OF A LIST OF MINIMAL TRAINING GOALS FOR
 SPRING 1956 RESEARCH ON RECONNAISSANCE PATROLLING- A
 FALL 1956 RESEARCH ON RECONNAISSANCE PATROLLING- A
 AN EVALUATION OF A
 AN EXPERIMENTAL EVALUATION OF TWO
 EXPERIMENTAL COMPARISON OF TWO
 ION OF AN AUTO-INSTRUCTIONAL PROGRAM ON THE FIRST WEEK OF A
 AL EVALUATION OF A METHOD OF PRESENTATION//
 VEMENT OF STUDENTS WITH UNSATISFACTORY ACADEMIC AVERAGES IN
 EMPLOYMENT AND EVALUATION OF AN IMPROVED RADIO REPAIR COURSE/
 L//
 INSTRUCTOR S GUIDE, PATROL 1, LAND NAVIGATION-
 DEVELOPMENT AND EVALUATION OF A PROGRAM OF INSTRUCTION IN
 TRAINFIRE I- A NEW COURSE IN
 EXTENSION OF RESEARCH IN TRAINFIRE I
 LET S TAKE A LOOK AT THE
 TRAINFIRE II- A NEW COURSE IN
 A COMPARISON BETWEEN VOLUNTEERS FOR THE AIRBORNE AND OTHER
 THE MAP-USING PROFICIENCY OF
 EHAVIOR DESCRIPTION QUESTIONNAIRE TECHNIQUE APPLIED TO ARMY
 PREDICTORS, DESCRIPTIONS AND CORRELATES OF
 SOME PROBLEMS OF
 E TRAINING CURRICULUM AND ACHIEVEMENT EVALUATION//
 EVALUATION OF FOUR AND EIGHT WEEKS
 EVALUATION OF FOUR-WEEK AND EIGHT-WEEK
 A STUDY OF CATEGORY IV PERSONNEL IN
 ACHIEVEMENT IN
 PERSONNEL//
 LEVISION IN ARMY TRAINING- EVALUATION OF TELEVISION IN ARMY
 TRAINING MATERIALS FOR AERIAL OBSERVER INSTRUCTION IN
 //
 PERFORMANCE AIDS FOR JUNIOR OFFICERS/ SAM
 OR RESEARCH ON USES OF THE UNAIDED EYE IN THE COLLECTION OF
 S// THE TRUMPET SOUNDS--CAN OUR TROOPS BE
 AIRE-- DEVELOPMENT AND ADMINISTRATION TO OFFICERS AND NCOS/
 CORRELATES OF COLLABORATION AND RESISTANCE
 BASIC TRAINING COMPANIES// RESULTS OF THE LEADER
 THE SOCIAL DESIRABILITY VARIABLE IN
 DANCE OF COMMITMENT AND NEED FOR CLOSURE AS DETERMINANTS
 MPARISON OF REENLISTMENT INTENTIONS WITH LATER REENLISTMENT
 N CONFLICT- A HISTORICAL ANALYSIS// THE POLITICAL
 FACTORS RELATED TO THE COLLABORATION AND RESISTANCE
 FACTORS RELATED TO THE COLLABORATION AND RESISTANCE
 / CONFIDENCE AND DESPAIR ATTITUDES// A CONCEPTUAL MODEL OF
 AVIGATIONAL PERFORMANCE// INTEGRATIVE
 SOME PROBLEMS IN THE ANALYSIS OF TROUBLE SHOOTING
 SITUATION AND PERSONAL VARIABLES IN AMOL
 ATTITUDE AND CONTINGENT REINFORCEMENT IN A VIGILANCE TASK//
 ATTITUDE AND INFORMATION PATTERNS OF OCS ELIGIBLES//
 ATTITUDE CHANGE- A STUDY OF PARTICIPANTS IN EXERCISE DESERT
 ATTITUDE CHANGE//
 ATTITUDE CHANGE// THE EFFECT OF SENSORY DEPRIVAT
 ATTITUDE CHANGE//
 ATTITUDE DATA FROM COMPANY COMMANDERS UNDER FIELD CONDITIONS
 ATTITUDES OF AMERICAN TROOPS TOWARD HOST POPULATIONS//
 ATTITUDES/ ACCIDENTS// AN EXPERIMENTAL EVALUATION OF A DR
 ATTITUDES// THE CORRECTIVE ACTION QUESTIONNAIRE-
 ATTITUDES// A CONCEPTUAL MODEL OF BEHAVIOR UNDER STRESS, WI
 ATTRITION BY GRADE STEPS FOR THE FIRST TEN FLIGHTS//
 ATTRITION PROBLEMS OF THE ARMY OFFICER CANDIDATE SCHOOLS OCS
 ATTRITION THROUGH SYNTHETIC CONTACT FLIGHT TRAINING/ TRAININ
 ATTRITION/ TRANSFER OF TRAINING// CHANGES IN FLIGHT TRAINEE
 ATTRITION// DESERT ROCK I- A PSYCHOLOGICAL STUDY OF TROOP
 AUDIO-VISUAL TASKS//
 AUDITORY COUNTING TASK//
 AUDITORY MONITORING//
 AUDITORY PERCEPTION OF NUMEROSITY AS AFFECTED BY NUMBER AND
 AUDITORY STIMULI//
 AUDITORY STIMULI//
 AUDITORY STIMULI// EFFECTS OF CON
 AUDITORY VIGILANCE IN REPEATED SESSIONS//
 AUDITORY VIGILANCE TECHNIQUE//
 AUDITORY VIGILANCE//
 AUDITORY VIGILANCE//
 AUDITORY, VISUAL, AND COMBINED AUDIO-VISUAL TASKS//
 AUTHORITARIANISM ON VIGILANCE PERFORMANCE//
 AUTHORITARIANISM TO BEHAVIORAL CONTAGION AND CONFORMITY//
 AUTODIAGRAMMATIC ACCOUNT OF CHINESE COMMUNIST THOUGHT REFORM
 AUTOMATED COURSE IN VIETNAMESE- AN INTERIM REPORT//
 AUTOMATED EDUCATION IN THE TRAINING OF LOW ALTITUDE SERIAL D
 AUTOMATED INSTRUCTION//
 AUTOMATED INSTRUCTION//
 AUTOMATED TEACHING//
 AUTOMATED//
 AUTOMATIC//
 AUTOMATION OF INSTRUCTION//
 AUTOMATION OF MILITARY COURSES OF INSTRUCTION//
 AUTOMATIVE LANGUAGE TEACHING//
 AUTO-INSTRUCTIONAL PROGRAM ON THE FIRST WEEK OF A BASIC ELEC
 AVIATION MECHANICAL MAINTENANCE TRAINING//
 AVIATION TRAINING DEVICES// THE IMPORTANCE OF
 AVIATION TRAINING RESEARCH//
 AVIATOR PERFORMANCE IN THE LIGHT WEAPONS HELICOPTER DURING N
 AVIATORS//
 AVIATORS//
 AVOIDANCE OF COMMITMENT AND NEED FOR CLOSURE AS DETERMINANTS
 AVOIDANCE OF CONFLICT ON DECISIONS ABOUT CONTINUING IN AN AC
 AMOL BEHAVIOR//
 BACKGROUND INFORMATION// PSYCHOLOGICAL
 BACKGROUND INFORMATION// PSYCHOLOGICAL
 BACKGROUND CHAINING//
 BARRON-WELSH FIGURE PREFERENCES AND PERFORMANCE IN COMBAT//
 BASIC AIRBORNE TRAINING COURSE AT FORT BENNING, GEORGIA//
 BASIC COMBAT AND LIGHT INFANTRY TRAINING//
 BASIC COMBAT SOLDIERS IN THE CRITICAL SKILLS OF MAP USING//
 BASIC COMBAT SQUADS WITH CONTROLLED ATTITUDE//
 BASIC COMBAT TRAINING//
 BASIC COMBAT TRAINING//
 BASIC COURSE IN INDIVIDUAL SKILLS//
 BASIC COURSE IN INDIVIDUAL SKILLS//
 BASIC EDUCATION PROGRAM IN THE ARMY/ APTITUDE/ TRAINING//
 BASIC EDUCATION PROGRAM IN THE ARMY//
 BASIC ELECTRONICS COURSES FOR FIRE CONTROL TECHNICIANS//
 BASIC ELECTRONICS COURSES// EVALUAT
 BASIC ELECTRONICS FOR MINIMALLY QUALIFIED MEN- AN EXPERIMENT
 BASIC ELECTRONICS/ APTITUDE// COURSE ACHIE
 BASIC ELECTRONICS// DE
 BASIC INSTRUCTION IN LAND NAVIGATION, PROFICIENCY TEST MANUA
 BASIC INSTRUCTION//
 BASIC LAND NAVIGATION//
 BASIC RIFLE MARKSMANSHIP//
 BASIC RIFLE MARKSMANSHIP COURSE//
 BASIC SKILLS OF AERIAL OBSERVERS//
 BASIC TECHNIQUE OF FIRE AND SQUAD TACTICS//
 BASIC TRAINEES (NON-VOLUNTEERS)//
 BASIC TRAINEES//
 BASIC TRAINING COMPANIES// RESULTS OF THE LEADER B
 BASIC TRAINING DELINQUENTS//
 BASIC TRAINING EFFECTIVENESS//
 BASIC TRAINING EFFECTIVENESS- INSTRUCTION CENTRALIZATION, TH
 BASIC TRAINING FOR MEN OF VARIOUS INTELLIGENCE LEVELS//
 BASIC TRAINING FOR MEN OF VARIOUS INTELLIGENCE LEVELS//
 BASIC TRAINING/ LOW APTITUDE/ REMEDIAL EDUCATION/ MARGINAL P
 BASIC TRAINING//
 BASIC TRAINING// TE
 BASIC VISUAL SKILLS//
 BATTERY EFFECTIVENESS- ASSESSMENT OF COMPARATIVE PERFORMANCE
 BATTERY OFFICERS/ JOE AID/ HANDBOOKS/ TRAINING REQUIREMENTS/
 BATTLEFIELD INFORMATION// REQUIREMENTS F
 BATTLEPROOFED/ STRESS/ COMBAT TRAINING/ SELECTION OF FIGHTER
 RCT/ ATTITUDES// THE CORRECTIVE ACTION QUESTIONNA
 BEHAVIOR AMONG U.S. ARMY POWS IN KOREA//
 BEHAVIOR DESCRIPTION QUESTIONNAIRE TECHNIQUE APPLIED TO ARMY
 BEHAVIOR DESCRIPTION//
 BEHAVIOR IN DECISION SITUATIONS//
 BEHAVIOR IN THREE GYROSCOPE UNITS//
 BEHAVIOR OF KOREAN AND CHINESE PRISONERS OF WAR IN THE KOREA
 BEHAVIOR OF U.S. ARMY POW S IN KOREA//
 BEHAVIOR OF U.S. ARMY PW S IN KOREA//
 BEHAVIOR UNDER STRESS, WITH IMPLICATIONS FOR COMBAT TRAINING
 BEHAVIOR VS. INDIVIDUAL SKILL MEASUREMENT AS PREDICTORS OF N
 BEHAVIOR//
 BEHAVIOR//
 152/F/64/03
 086/B/53/OCES
 145/B/53/YUCCA
 151/D/62/BR-6
 151/D/63/AR-6
 027/A/61/ENDOR
 058/B/56/INTER
 013/B/54/ACROS
 147/C/66/ES-20
 026/B/66/CENTER
 040/R/66/FIGHTE
 167/F/56/02
 086/R/54/OCES
 036/B/65/ECHO
 036/R/66/ECHO
 034/B53//DESE-1
 162/F/62/12
 103/R/63/RAID
 162/F/61/07
 151/D/62/BR-6
 037/F/58/ENDOR
 037/R/59/ENDOR
 037/R/60/ENDOR
 162/F/61/08
 037/R/61/ENDOR
 167/F/60/06
 162/F/61/09
 162/F/62/12
 138/R/63/VIGIL
 103/R/64/RAID
 127/R/64/TICK
 070/R/63/MALT
 084/R/64/CHSER
 125/R/62/TEXT
 125/R/63/TEXT
 125/R/59/TEXT
 167/F/61/04
 109/R/62/RIFLE
 125/R/59/TEXT
 167/F/61/06
 031/R/61/CONTA
 125/R/64/TEXT
 159/F/57/01
 036/R/63/ECHO
 162/F/61/17
 054/R/64/HELEF
 063/R/62/LIFT
 063/R/61/LIFT
 025/R/63/CAREE
 025/R/59/CAREE
 123/R/53/STIR
 159/F/53/01
 159/F/53/01
 162/F/65/02
 040/R/57/FIGHT
 159/F/55/02
 094/R/55/PROFI
 072/R/55/MAPUS
 015/R/55/APITT
 015/R/56/APITT
 022/R/60/RASIC
 091/R/57/PATRO
 091/R/57/PATRO
 104/R/55/READ
 104/R/56/READ
 068/R/60/MAINT
 125/R/64/TEXT
 065/R/60/LIMIT
 099/R/58/RAPAR
 168/R/59/REPAI
 091/R/58/PATRO
 091/R/59/PATRO
 091/R/61/PATRO
 130/R/55/TRAIN
 130/R/58/TRAIN
 084/R/61/OBSER
 130/R/57/TRAIN
 143/R/54/VOLAT
 071/B/54/MAPRE
 022/B/56/BASIC
 022/R/56/BASIC
 022/R/54/BASIC
 022/R/57/BASIC
 022/R/56/BASIC
 022/R/56/BASIC
 026/R/66/CENTER
 022/R/55/BASIC
 133/B/54/TV
 084/B/62/OBSER
 011/R/54/AAA
 114/B/65/SAMOFF
 084/B/61/OBSER
 040/B/65/FIGHTE
 026/B/66/CENTER
 094/B/57/PSYFR
 022/R/56/BASIC
 088/B/60/OFFTH
 025/R/63/CAREE
 135/B/55/INTRO
 127/R/58/TICK
 094/B/56/PSYFR
 094/B/57/PSYFR
 040/B/66/FIGHTE
 109/R/62/RIFLE
 068/R/59/MAINT
 123/B/53/STIR

THE USE OF SCHEDULES OF REINFORCEMENT TO REGULATE A
DEVELOPMENT OF PROFICIENCY TESTS FOR BASIC
POSSIBLE
HIGHER LEVELS OF COMMAND AS VIEWED BY SENIOR AND EXPERIENCED
THE ARMOR
BASIC MILITARY INFORMATION AND
FIGHTER 1- AN ANALYSIS OF
RY THREAT ON DECISION MAKING AND RISK-TAKING IN A SIMULATED
A LIMITED LANGUAGE FOR OBTAINING
L// DETERMINATION OF
TOON SERGEANT// THE QUICK OR DEAD RIFLE
INFERRED CORRELATION BETWEEN
SOCOMETRIC EFFECTS OF RACE AND
INFANTRY OCS EVALUATIONS AND
FIGHTER 1- A STUDY OF EFFECTIVE AND INEFFECTIVE
THE TANK PLATOON
THE DEVELOPMENT AND EVALUATION OF THE TANK PLATOON
REALISTIC TARGETS FOR THE TRAINING AND TESTING OF
EFFECTS OF CBR PROTECTION UPON THE PERFORMANCE OF SELECTED
1962 LIGHT WEAPONS INFANTRYMAN, MOS 111.0// CRITICAL
PROTECTIVE MASK UPON THE PERFORMANCE OF SELECTED INDIVIDUAL
PROTECTIVE MASK UPON THE PERFORMANCE OF SELECTED INDIVIDUAL
SUBSEQUENT ARMY CAREERS OF EFFECTIVE AND INEFFECTIVE
INING PROGRAM FOR LIGHT WEAPONS INFANTRYMAN, MOS 111.0//
PTUAL MODEL OF BEHAVIOR UNDER STRESS, WITH IMPLICATIONS FOR
HE TRUMPET SOUNDS--CAN OUR TROOPS BE BATTLEPROOFED/ STRESS/
E DEVELOPMENT OF A LIST OF MINIMAL TRAINING GOALS FOR BASIC
INFANTRY
RADIO-CONTROLLED TANKS FOR REALISTIC
INCIDENTAL OBSERVATIONS GATHERED DURING RESEARCH IN
HUMAN FACTORS IN TACTICAL NUCLEAR
HUMAN FACTORS IN TACTICAL NUCLEAR
RY STUDY OF ITS STRUCTURE, MEASUREMENT, AND RELATIONSHIP TO
BETWEEN BARON-WELSH FIGURE PREFERENCES AND PERFORMANCE IN
SOME CONSIDERATIONS ON HUMAN FACTORS IN FUTURE
THE PROBLEM OF SIMPLE
S// LEADERSHIP AT HIGHER LEVELS OF

WHO WILL
OF RECENT RESEARCH AND DEVELOPMENT ON MILITARY LEADERSHIP,
ASSUMPTION OF
TANK
USE OF THE Q-SORT FOR COLLECTING ATTITUDE DATA FROM COMPANY
IMPROVING TACTICAL TRAINING FOR TANK
EVFLS OF COMMAND AS VIEWED BY SENIOR AND EXPERIENCED COMBAT
IN DECISION SITUATIONS// AVOIDANCE OF
LEGE//

THE DEVELOPMENT OF A BASIS FOR A
SOME ASPECTS OF

THE SIMULATION OF CROSS-CULTURAL
TACTICAL
SIMULATION EXERCISES IN AREA TRAINING/ CROSS-CULTURAL
FACTORS AFFECTING CREDIBILITY IN PSYCHOLOGICAL WARFARE
E OF MUSIC RECORDINGS FOR PROPAGANDA BROADCASTS TO SELECTED
IN KOREAN WAR// ADJUSTMENT OF CHINESE SOLDIERS TO
ERATIONS- STUDY OF MOTIVATIONS OF SOLDIERS FROM THE CHINESE
AL ORIENTATIONS TO SOCIAL RELATIONS IN CHINESE RESPONSES TO
DETERMINANTS OF LOYALTY AND DISAFFECTION IN CHINESE
ARY PSYCHOLOGICAL WARFARE// MOTIVATIONS OF CHINESE
ING, ANTI-COMMUNIST- AN AUTOBIOGRAPHICAL ACCOUNT OF CHINESE
AL WARFARE (U)//

TION QUESTIONNAIRE TECHNIQUE APPLIED TO ARMY BASIC TRAINING
THE USE OF THE Q-SORT FOR COLLECTING ATTITUDE DATA FROM
AN EXPERIMENTAL
G THE ABILITY OF THE INDIVIDUAL SOLDIER TO EMPLOY A MAP AND
CAPABILITIES AND LIMITATIONS OF THE LENSATIC
TRAINING RESEARCH UTILIZING MAN
THE SYSTEMS
TEN NEW
ORGANIZING THE PRESENTATION OF

LEADERSHIP
FOR COMBAT TRAINING/ CONFIDENCE AND DESPAIR ATTITUDES// A
AN OVERVIEW OF THE
DEPRIVATION AND SOCIAL ISOLATION//
FURTHER COMMENT ON CLASSICAL AND INSTRUMENTAL
THE
HAVIOR UNDER STRESS, WITH IMPLICATIONS FOR COMBAT TRAINING/
DRAFT POLICY STATEMENT ON EFFECTS OF FATIGUE AND
THE EFFECT OF AVOIDANCE OF
FACTORS IN THE RECOVERY FROM APPROACH-AVOIDANCE
THE EFFECT OF SENSORY DEPRIVATION AND SOCIAL ISOLATION ON
ION AND SOCIAL ISOLATION//
TELLIGENCE AND AUTHORITARIANISM TO BEHAVIORAL CONTAGION AND
SOCIAL ISOLATION//
FECT//

S SCALE//
THE
/ REDUCTION OF HELICOPTER PILOT ATTRITION THROUGH SYNTHETIC
INTACT- INTEGRATED INSTRUMENT
A SUMMARY OF PRIOR RESEARCH ON INTEGRATED
RELATION OF INTELLIGENCE AND AUTHORITARIANISM TO BEHAVIORAL
BEHAVIORAL
M SOLVING, VERBAL INTERACTION, COORDINATION// INTERACTION
USE IN DEVELOPING TASK INVENTORIES/ JOB ANALYSIS/ TRAINING
THE
ION STRUCTURE FOR ORDERING TRAINING PRINCIPLES AND TRAINING
HOW TO ANALYZE PERFORMANCE OBJECTIVES TO DETERMINE TRAINING
SIFICATION OF INSTRUCTIONAL OBJECTIVES/ SELECTION OF COURSE
THE FUNCTIONAL
THE ROLE OF EXPERIMENTER ATTITUDE AND

COLLECTIVE TEAM RESPONSE RATE//
COMBAT AND LIGHT INFANTRY TRAINING//
COMBAT APPLICATION OF EXPERIMENTAL STEALTH MEASURING DEVICE/
COMBAT COMMANDERS// LEADERSHIP AT H
COMBAT DECISIONS GAME//
COMBAT EFFECTIVENESS//
COMBAT FIGHTERS AND NON-FIGHTERS//
COMBAT GAME// THE EFFECTS OF SUPERVISOR
COMBAT INFORMATION FROM POWS- A PILOT STUDY//
COMBAT JOB REQUIREMENTS FOR ARMORED CAVALRY PLATOON PERSONNEL
COMBAT JOB REQUIREMENTS FOR TANK PLATOON LEADER AND TANK PLA
COMBAT MARKSMANSHIP TRAINING//
COMBAT PERFORMANCE AND SOME FIELD LABORATORY STRESSES//
COMBAT PERFORMANCE//
COMBAT PERFORMANCE//
COMBAT PERFORMERS//
COMBAT READINESS CHECK//
COMBAT READINESS CHECK//
COMBAT RIFLEMEN//
COMBAT SKILLS IN HOT WEATHER// THE
COMBAT SKILLS, KNOWLEDGES, AND PERFORMANCES REQUIRED OF THE
COMBAT SKILLS// THE EFFECTS OF WEARING THE CBR
COMBAT SKILLS// THE EFFECTS OF WEARING THE CBR
COMBAT SOLDIERS//
COMBAT SUBJECTS AND PROFICIENCY LEVELS ESSENTIAL TO 1962 TRA
COMBAT TRAINING/ CONFIDENCE AND DESPAIR ATTITUDES// A CONC
COMBAT TRAINING/ SELECTION OF FIGHTERS// T
COMBAT TRAINING// TH
COMBAT TRAINING//
COMBAT TRAINING//
COMBAT UNIT//
COMBAT/BRIEFING//
COMBAT/TECHNICAL REPORT//
COMBAT// FIELD STRESS- A PRELIMINA
COMBAT// EFFECT OF INTELLIGENCE AND RACE ON THE CORRELATION
COMBAT//
COMBINATION SCORES IN MEASUREMENT//
COMMAND AS VIEWED BY SENIOR AND EXPERIENCED COMBAT COMMANDER
COMMAND DECISION MAKING IN THE FAR NORTH//
COMMAND LEADERSHIP//
COMMAND OUR TANKS//
COMMAND, AND TEAM FUNCTION// A REVIEW
COMMAND//
COMMANDER TRAINING IN THE RESERVE COMPONENTS//
COMMANDERS UNDER FIELD CONDITIONS// THE
COMMANDERS- TEST DEVELOPMENT AND PERFORMANCE ASSESSMENT//
COMMANDERS// LEADERSHIP AT HIGHER L
COMMITMENT AND NEED FOR CLOSURE AS DETERMINANTS OF BEHAVIOR
COMMITTEE PROCEEDING-SOLVING TECHNIQUES AT THE NATIONAL WAR COL
COMMON CORE CURRICULUM/ ROTC//
COMMONALITY OF SOCIAL PERCEPTION//
COMMUNICATION AND LEADERSHIP ROLES//
COMMUNICATION/ AREA TRAINING//
COMMUNICATION//
COMMUNICATIONS//
COMMUNICATIONS//
COMMUNIST COUNTRIES (U)// CATALOGU
COMMUNIST DEMAND FOR IDEOLOGICAL PARTICIPATION- STUDY OF CCF
COMMUNIST FORCES IN KOREA// METHODOLOGICAL CONSID
COMMUNIST MILITARY-POLITICAL CONTROL// ROLE OF TRADITION
COMMUNIST SOLDIERS DURING THE KOREAN HOSTILITIES//
COMMUNIST SOLDIERS- A BASIS FOR RESEARCH IN SUPPORT OF MILIT
COMMUNIST THOUGHT REFORM// WANG TSUN-M
COMMUNIST VULNERABILITIES TO THE USE OF MUSIC IN PSYCHOLOGIC
COMPANIES// RESULTS OF THE LEADER BEHAVIOR DESCRIP
COMPANY COMMANDERS UNDER FIELD CONDITIONS//
COMPARISON OF THREE ATGM GUNNER TRAINING PROGRAMS//
COMPASS IN LAND NAVIGATION// IMPROVIN
COMPASS//
COMPUTER INTERACTIONS- PROMISE AND REALITY//
CONCEPT AS A PRINCIPLE OF METHODOLOGICAL DECISION//
CONCEPT OF A TECHNOLOGY OF TRAINING//
CONCEPTS FOR MAINTAINING ELECTRONIC SYSTEMS//
CONCEPTS IN EDUCATION AND TRAINING- THE LATTICE TECHNIQUE//
CONCEPTS OF TRAINING//
CONCEPTS//
CONCEPTUAL APPROACH TO TRAINING RESEARCH//
CONCEPTUAL MODEL OF BEHAVIOR UNDER STRESS, WITH IMPLICATIONS
CONCEPTUAL STRUCTURE OF SUBTASK PIONEER VII//
CONDITIONING OF CONNOTATIVE MEANING AS A FUNCTION OF SENSORY
CONDITIONING//
CONDUCT OF FIELD STUDIES//
CONFIDENCE AND DESPAIR ATTITUDES// A CONCEPTUAL MODEL OF BE
CONFINEMENT//
CONFLICT ON DECISIONS ABOUT CONTINUING IN AN ACTIVITY//
CONFLICT//
CONFORMITY TO A GROUP NORM//
CONFORMITY TO A GROUP NORM AS A FUNCTION OF SENSORY DEPRIVAT
CONFORMITY// RELATION OF IN
CONNOTATIVE MEANING AS A FUNCTION OF SENSORY DEPRIVATION AND
CONSENSUS AND JUDGMENTAL ACCURACY- EXTENSION OF THE ASCH EF
CONSERVATION TRAINING ON M-48 TANK GASOLINE CONSUMPTION//
CONSTRUCTION, VALIDATION AND APPLICATION OF SUBJECTIVE STRES
CONTACT FLIGHT TRAINING/ TRAINING DEVICE/ TRAINING TRANSFER//
CONTACT PRIMARY FLIGHT TRAINING//
CONTACT/INSTRUMENT FLIGHT TRAINING//
CONTAGION AND CONFORMITY//
CONTAGION//
CONTENT AND TEAM EFFECTIVENESS-- STUDY OF SMALL GROUP PROBLE
CONTENT DERIVATION// A MODEL OF JUNIOR OFFICER JOBS FOR
CONTENT VALIDITY OF INSTRUCTIONAL OBJECTIVES/ JOB ANALYSIS//
CONTENT// FEASIBILITY OF DEVELOPING A TASK CLASSIFICAT
CONTENT//
CONTENT// THE DERIVATION, ANALYSIS, AND CLAS
CONTEXT METHOD OF INSTRUCTION//
CONTINGENT REINFORCEMENT IN A VIGILANCE TASK//

154/D/64/BR-V
094/R/55/PROFI
091/B/59/PATRO
159/F/61/02
136/B/62/UNIT
022/B/55/BASIC
040/B/57/FIGHT
147/C/66/ES-12
031/B/60/CONTA
105/B/64/RECON
136/B/61/UNIT
109/B/63/RIFLE
040/B/58/FIGHT
040/B/58/FIGHT
086/B/54/OCS
040/B/58/FIGHT
136/B/62/UNIT
136/B/63/UNIT
130/B/55/TRAINF
095/B/61/PROTE
109/B/61/RIFLE
095/B/59/PROTE
095/B/60/PROTE
040/B/57/FIGHT
109/B/58/RIFLE
040/B/66/FIGHTE
040/B/65/FIGHTE
022/B/60/BASIC
109/B/62/RIFLE
136/B/60/UNIT
040/B/53/FIGHT
157/E/65/TAS
157/E/65/TAS
040/B/57/FIGHT
040/B/57/FIGHT
167/F/59/01
071/R/55/MAPRE
159/F/61/02
029/B/60/COLDS
147/F/64/05
118/R/57/SHOCK
147/F/64/07
055/R/64/HIGHL
118/R/54/SHOCK
058/B/56/INTER
124/R/63/TANKE
159/F/61/02
025/B/63/CAREE
093/B/54/POLIC
112/R/65/ROCOM
086/B/54/OCS
035/R/55/DESE-V
016/R/66/AREA
148/C/65/ES-30
016/R/65/AREA
027/R/56/CHATT
132/B/54/TREBL
127/B/59/TICK
127/B/56/TICK
127/B/58/TICK
127/B/56/TICK
127/B/58/TICK
127/R/54/TICK
132/R/54/TREBL
022/B/56/BASIC
058/R/56/INTER
049/B/62/TIREP
091/B/57/PATRO
091/B/59/PATRO
167/F/63/08
162/F/62/02
167/F/60/02
079/B/65/MOSAIC
075/B/62/METHO
162/F/62/01
167/F/57/01
167/F/59/04
040/B/66/FIGHTE
153/D/63/BR-7
151/D/63/BR-6
162/F/59/01
159/F/58/01
040/B/66/FIGHTE
167/F/63/01
025/B/59/CAREE
162/F/57/02
151/D/63/BR-6
151/D/63/BR-6
103/B/64/RAIO
151/D/63/BR-6
151/D/66/BR-6
077/B/55/MOBIL
040/B/58/FIGHT
036/B/65/ECHO
057/B/60/INTAC
057/B/58/INTAC
103/B/64/RAIO
103/B/64/RAIO
134/B/66/UNIFEC
114/R/65/SAMOFF
056/B/66/INGO
153/D/63/BR-A
059/B/60/JORTR
056/B/66/INGO
106/B/60/REPAIR
162/F/64/03

PERFORMANCE- 1 EFFECTS OF REINFORCING THE LONGER INTERVALS OF
 SEVERAL METHODS OF TEACHING
 AN INVESTIGATION OF SEVERAL METHODS OF TEACHING
 EVALUATION OF PLASMA LOCALIZATION PERFORMANCE WITH THE FIRE
 MILITARY
 TEST// SPANOCOM- SPAN OF
 ACTIONS IN RATING// SPANOCOM- SPAN OF
 ACTIONS IN CHINESE RESPONSES TO COMMUNIST MILITARY-POLITICAL
 TOLOGRAPHY ON PROFICIENCY MEASUREMENT FOR TRAINING QUALITY
 A PRELIMINARY STUDY OF THE EFFECTS OF
 A PROCEDURE FOR
 A FOLLOW-UP STUDY OF EXPERIMENTALLY AND
 A FOLLOW-UP STUDY OF EXPERIMENTALLY TRAINED AND
 A TEST OF A METHOD OF
 THE EFFECTS OF TWO TYPES OF
 VERBAL
 NIGHTTIME
 - STUDY OF SMALL GROUP PROBLEM SOLVING, VERBAL INTERACTION,
 EXPERIMENTAL STUDIES OF SKILL IN
 THE DEVELOPMENT OF A BASIS FOR A COMMON
 TION TO OFFICERS AND NCOs/ BCT/ ATTITUDES// THE
 PREDICTORS, DESCRIPTIONS AND
 PERSONALITY
 OF CORRECT AND INCORRECT KNOWLEDGE OF RESULTS ON ABILITY TO
 A BIBLIOGRAPHY ON THE ROLE OF AIR POWER IN GUERRILLA AND
 / THE REPUBLIC OF CHINA// ADVISOR AND
 PROCEDURE OF
 THE EFFECT OF MISINFORMATION UPON THE
 PARISON OF RANDOM PAIRS AND REAL PAIRS ON A SIMPLE AUDITORY
 NO CLASSIFICATION OF INSTRUCTIONAL OBJECTIVES/ SELECTION OF
 THE RELATIONSHIP BETWEEN LEADERS
 SPRING 1956 RESEARCH ON RECONNAISSANCE PATROLLING- A BASIC
 FALL 1956 RESEARCH ON RECONNAISSANCE PATROLLING- A BASIC
 LOW ALTITUDE AERIAL OBSERVATION- AN EXPERIMENTAL
 RYMEN, MOS 111.0, GRADUATES OF ADVANCED INDIVIDUAL TRAINING
 DIAGNOSIS AND TREATMENT OF AN ARMY ELECTRONICS TRAINING
 PROBLEMS IN PROGRAMING AND INTENSIVE ORAL-AURAL LANGUAGE
 PROGRAMING AN INTENSIVE ORAL-AURAL LANGUAGE
 DY OF A SPECIAL, MACHINE-TEAUGHT ORAL-AURAL RUSSIAN LANGUAGE
 ENT AND EVALUATION OF AN EXPERIMENTAL ORDNANCE RADAR REPAIR
 INSTRUCTORS GUIDE - ADVANCED LAND NAVIGATION- A PROTO-TYPE
 TARGET PLACEMENT ON A DETECTION PROFICIENCY
 TENSION OF RESEARCH IN TRAINFIRE I BASIC RIFLE MARKSMANSHIP
 THE EVALUATION OF SELF-INSTRUCTIONAL FOREIGN LANGUAGE
 AN ANALYSIS OF CERTAIN DETERMINANTS, CHARACTERISTICS, AND
 FACTORS AFFECTING
 RESULTS OF INTERVIEWS WITH THE STALK
 THE DETERMINATION OF JOB REQUIREMENTS FOR TANK
 THE DETERMINATION OF JOB REQUIREMENTS FOR TANK
 RCAF EXPERIENCE WITH THE TRAINING OF NATO
 THE ACHIEVEMENT OF ACTIVE DUTY AND RESERVE TANK
 AN EVALUATION OF THE ON-THE-JOB PROFICIENCY OF TRAINED TANK
 SOCIOMETRIC CHOICE AND GROUP PRODUCTIVITY AMONG RADAR
 PSYCHOLOGICAL AND PHYSIOLOGICAL
 THE DEVELOPMENT OF PERFORMANCE
 MULTIPLE
 A FACTOR ANALYSIS OF
 TMENT OF AN ARMY ELECTRONICS TRAINING COURSE/ JOB ANALYSIS/
 UNION NONCOMMISSIONED OFFICERS// A
 A QUANTITATIVE APPROACH TO THE STUDY OF DIRECTED
 A SELECTED BIBLIOGRAPHY OF
 THE PRIMARY VARIABLES IN DIRECTED
 PEASANT PATALISM AND SOCIOECONOMIC INNOVATION/
 SIMULATION EXERCISES IN AREA TRAINING/
 THE SIMULATION OF
 THE PROCESS OF
 THEIR IMPLICATIONS FOR AREA TRAINING//
 RSFAS- AN INSTRUCTORS HANDBOOK// EXAMPLES OF
 S M-33 MECHANIC PROFICIENCY TEST- PART II - DEVELOPMENT AND
 N IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ VISUAL
 SOME NOTES ON
 A PROCEDURE FOR CONTROLLING ARMY SCHOOL
 ING EFFECTIVENESS- INSTRUCTION CENTRALIZATION, THE TRAINING
 LIZATION AND PROPOSED CONTENT// A PROVISIONAL CORE
 THE DEVELOPMENT OF A BASIS FOR A COMMON CORE
 TRAINING- AN EVALUATION OF THE PSYCHOLOGICAL WARFARE SCHOOL
 HUMAN FACTORS IN THE AIR
 EFFECTS OF INTENSE NOISE ON PROCESSING OF
 EFFECTS OF TIME-SHARING AND BODY POSITIONAL DEMANDS ON
 VISUAL SENSATIONS EXPERIENCED IN THE
 WHEN IT S
 METHODS AND DEVICES FOR TEACHING
 RESEARCH ON HUMAN AERIAL OBSERVATION, PART II- SUMMARY
 MPLEX// THE TECHNICIAN AS A
 A VICTORY BEFORE
 IDENTIFICATION OF THE IMPORTANT SKILLS IN
 THE EFFECTS OF SUPERVISORY THREAT ON
 COMMAND
 AN INVESTIGATION OF FLEXIBILITY IN TACTICAL
 MITMENT AND NEED FOR CLOSURE AS DETERMINANTS OF BEHAVIOR IN
 THE EFFECT OF AVOIDANCE OF CONFLICT ON
 THE ARMOR COMBAT
 THE INFLUENCE OF COGNITIVE DISSONANCE ON SEQUENTIAL
 SOVIET MILITARY
 EFFECTIVENESS OF PERFORMANCE// INVESTIGATION OF THE ROLE OF
 PERFORMANCE OF MENTAL
 PERFORMANCE OF MENTAL
 TRAINING PROGRAMS FOR FIRST ENLISTMENT REPAIRMEN- 1. HOW TO
 A PRELIMINARY INVESTIGATION OF
 A STUDY OF THE ARMY
 PREDICTORS, DESCRIPTIONS AND CORRELATES OF BASIC TRAINING
 CONTINUOUS TRACKING WITHIN EACH TRIAL// PURSUIT ROTOR PER 154/D/66/BR-9
 CONTOUR INTERPRETATION// 072/B/57/MAPUS
 CONTOUR INTERPRETATION// 072/B/57/MAPUS
 CONTROL SYSTEM OF THE M4B TANK// AN 018/B/62/ARMORN
 CONTROL - A FREQUENTLY MISSED TRAINING OPPORTUNITY// 125/B/61/TEXTR
 CONTROL, 1. DEVELOPMENT OF A KNOWLEDGE-FREE SPAN OF CONTROL 120/B/62/SPANO
 CONTROL, 2. EFFECT ON RELIABILITY OF FREE AND FORCED DISTRIB 120/B/61/SPANO
 CONTROL// ROLE OF TRADITIONAL ORIENTATIONS TO SOCIAL REL 127/B/58/TICK
 CONTROL// AN ANNOTATED B 159/F/64/O1
 CONTROLLED ISOLATION// 151/D/62/BR-6
 CONTROLLING ARMY SCHOOL CURRICULA// 167/F/62/O1
 CONTROLLING THE QUALITY OF TRAINING// 159/F/65/O1
 CONVENTIONALLY TRAINED FIELD RADIC REPAIRMEN// 106/B/60/REPAI
 CONVENTIONALLY TRAINED FIELD RADIO REPAIRMEN PROFICIENCY TES 106/B/60/REPAI
 CONVERTING PROFICIENCY SCORES TO LEARNING TIME SCORES// 111/B/64/RINGE
 COORDINATE SYSTEMS ON LOCALIZATION OF PERIPHERAL LIGHT FLASH 018/B/65/ARMORN
 COORDINATION AND PERFORMANCE IN SMALL MILITARY TEAMS// 134/B/64/UNITE
 COORDINATION OF RIFLE FIRE BY SYSTEMATIC RULES RATHER THAN B 078/B/55/MOONL
 COORDINATION// INTERACTION CONTENT AND TEAM EFFECTIVENESS- 134/B/66/UNITEFC
 COPYING INTERNATIONAL MORSE CODE/ MOTIVATION// 102/B/60/RADNP
 CORE CURRICULUM/ ROTC// 112/B/65/ROCOM
 CORRECTIVE ACTION QUESTIONNAIRE-- DEVELOPMENT AND ADMINISTRA 026/B/62/CENTER
 CORRELATES OF BASIC TRAINING DELINQUENTS// 022/B/56/BASIC
 CORRELATES OF LEADERSHIP// 084/B/54/DCS
 COUNT AUDITORY STIMULI// EFFECTS 037/B/60/ENDNR
 COUNTERGUERRILLA OPERATIONS// 120/B/62/SPECI
 COUNTERINSURGENCY TRAINING- A SELECTED SUBJECT AIRLIDGRAPHY/ 120/B/62/SPECI
 COUNTERPART ACTIVITIES IN THE MILITARY ASSISTANCE PROGRAM IN 147/C/65/ES-2
 COUNTER INTELLIGENCE CORPS TRAINEES// 027/B/57/CINCO
 COUNTING OF AUDITORY STIMULI// 037/B/59/ENDNR
 COUNTING TASK// COM 103/B/63/RAID
 COURSE CONTENT// THE DERIVATION, ANALYSIS, A 056/B/66/INGO
 COURSE EVALUATIONS AND OCS EVALUATIONS// 084/B/54/DCS
 COURSE IN INDIVIDUAL SKILLS// 091/B/57/PATRO
 COURSE IN INDIVIDUAL SKILLS// 091/B/57/PATRO
 COURSE OF INSTRUCTION// 084/B/62/ONSER
 COURSE, ATP 7-1// EVALUATION OF LIGHT WEAPONS INFANT 109/B/62/RIFLE
 COURSE/ JOB ANALYSIS/ CRITERION TEST// 099/B/57/RADAR
 COURSE// 031/B/61/CONTA
 COURSE// 031/B/62/CONTA
 COURSE// A FEASIBILITY STU 031/B/60/CONTA
 COURSE// DEVELOPM 083/B/64/NICOR
 COURSE// 109/B/63/RIFLE
 COURSE// 130/B/54/TRAINF
 COURSE// 130/B/54/TRAINF
 COURSE// EX 031/B/64/CONTA
 COURSES// 022/B/56/BASIC
 COVARIATES OF BASIC TRAINEE LEADERSHIP SOCIOMETRIC DATA// 027/B/56/CHATT
 CREDIBILITY IN PSYCHOLOGICAL WARFARE COMMUNICATIONS// 011/B/55/AAA
 CREW DESCRIPTION, DIMENSIONS, AND RADAR CROW EFFECTIVENESS// 121/B/57/STALK
 CREW MEMBERS (I)// 118/B/58/SHOCK
 CREW MEMBERS// 118/B/58/SHOCK
 CREW// 167/F/60/5
 CREWMEN IN AREAS OF ESSENTIAL ARMOR KNOWLEDGE// 118/B/58/SHOCK
 CREWMEN// 118/B/58/SHOCK
 CREWS// 011/B/55/AAA
 CRITERIA FOR CAREER FORCE STRUCTURE// 167/F/63/O7
 CRITERIA FOR STRESS SIMULATION RESEARCH// 040/B/63/FLIGHT
 CRITERIA FOR THURMET MECHANICS// 077/B/61/MORAIL
 CRITERIA IN PRODUCTIVITY STUDIES OF MILITARY GROUPS// 167/F/55/O2
 CRITERION ORIENTED RATINGS// 084/B/54/DCS
 CRITERION TEST// DIAGNOSIS AND TREA 099/B/57/RADAR
 CRITICAL INCIDENT STUDY OF INFANTRY, AIRBORNE, AND ARMORED J 080/B/58/NCO
 CROSS-CULTURAL CHANGE// 028/B/64/CIVIC
 CROSS-CULTURAL CHANGE PROJECTS// 028/B/64/CIVIC
 CROSS-CULTURAL CHANGE// 028/B/64/CIVIC
 CROSS-CULTURAL CHANGE// 028/B/65/CIVIC
 CROSS-CULTURAL COMMUNICATION// 016/B/65/AREA
 CROSS-CULTURAL COMMUNICATION/ AREA TRAINING// 016/B/66/AREA
 CROSS-CULTURAL INNOVATION// 028/B/64/CIVIC
 CROSS-CULTURAL PROBLEMS OF U.S. ARMY PERSONNEL IN LAOS AND T 016/B/64/AREA
 CROSS-CULTURAL PROBLEMS ENCOUNTERED BY AMERICANS WORKING OVE 016/B/65/AREA
 CROSS-VALIDATION// THE AAFC 099/B/57/RADAR
 CUE RESPONSE ANALYSIS OF A MAINTENANCE TASK// 051/B/58/FOROC
 CUES// A REVIEW OF THE ANALYSIS OF VISUAL DISCRIMINATION 113/B/66/ROTOR
 CUMULATIVE SCALES// 162/F/55/O1
 CURRICULA// 167/F/62/O1
 CURRICULUM AND ACHIEVEMENT EVALUATION// BASIC TRAI 022/B/57/BASIC
 CURRICULUM FOR INFANTRY NIGHT OPERATIONS TRAINING- CONCEPTIA 123/B/60/SHING
 CURRICULUM/ ROTC// 112/B/65/ROCOM
 CURRICULUM// PSYCHOLOGICAL WARFARE JOB REQUIREMENTS AND 097/B/56/PSYJO
 CUSHION VEHICLES (ACVI) 090/B/62/OVERD
 CUTANEOUS INFORMATION OF VARYING COMPLEXITY// 148/C/65/ES-30
 CUTANEOUS INFORMATION PROCESSING// 148/C/65/ES-30
 DARK AS A FUNCTION OF INSTRUCTION AND PRIOR VERBALIZATION// 151/D/62/RR-6
 DARK IN THE DAYTIME// 162/F/62/O5
 DATA FLOW TO ELECTRONIC MAINTENANCE PERSONNEL// 128/B/62/TRACE
 DATA FROM TACTICAL FIELD TESTS// 084/B/60/ONSER
 DATA PROCESSING SYSTEM WITHIN THE ELECTRONICS MAINTENANCE CO 059/B/63/JOBT
 DAWN ARMOR NIGHT GUNNERY// 018/B/59/ARMORN
 DAYLIGHT LAND NAVIGATION// 072/B/57/MAPUS
 DECISION MAKING AND RISK-TAKING IN A SIMULATED COMBAT GAME// 147/C/66/ES-12
 DECISION MAKING IN THE FAR NORTH// 029/B/60/COLDS
 DECISION MAKING// 033/B/57/DECIS
 DECISION SITUATIONS// AVOIDANCE OF COM 025/B/63/CAREE
 DECISIONS ABOUT CONTINUING IN AN ACTIVITY// 025/B/59/CAREE
 DECISIONS GAME// 136/B/62/UNIT
 DECISIONS// 033/B/57/DECIS
 DEFECTORS AND WESTERN PROPAGANDA- A PILOT STUDY// 030/B/55/COMPR
 DEFENSIVE FUNCTIONING IN RELATION TO EMOTIONAL ARIUSAL AND F 040/B/61/FLIGHT
 DEFICIENTS ON A SIMPLE VIGILANCE TASK// 167/F/61/O2
 DEFICIENTS ON A SIMPLE VIGILANCE TASK// 162/F/62/O6
 DEFINE TRAINING OBJECTIVES// THE DEVELOPMENT OF 059/B/60/JOBT
 DELINQUENCY IN THE ARMY// 123/B/54/STIR
 DELINQUENTS// 011/B/56/AAA
 DELINQUENTS// 022/B/56/BASIC

211

ABILITY AND PROGRAMED INSTRUCTION PERFORMANCE/ INDIVIDUAL
AL ANILITY ON PROGRAMED INSTRUCTION PERFORMANCE/ INDIVIDUAL
THE RELIABILITY OF A MODIFIED
THE RELIABILITY OF A MODIFIED

RTINENT VISION VARIABLES// THE DISTRIBUTION OF INSTRUMENTAL
HOSTILITIES// DETERMINANTS OF LOYALTY AND

TION/ VISUAL CUES// A REVIEW OF THE ANALYSIS OF VISUAL
LEARNING// A SELF-INSTRUCTIONAL PROGRAM FOR TONAL
ICAL MANDARIN CHINESE LANGUAGE COURSE/ INTERROGATION/ TONAL
PROBLEMS AND POSSIBILITIES IN THE USE OF
FILMS AND GROUP
PICTORIAL NAVIGATION
TRAINING LEADERS WITH SOUND FILMS AND
THE INFLUENCE OF COGNITIVE
R TARGET DETECTION AS A FUNCTION OF SEARCH AREA AND VIEWING
PAN OF CONTROL, 2. EFFECT ON RELIABILITY OF FREE AND FORCED
F RATE OF TEAMS// EFFECTS OF DRL AND
OF A DRIVER SIMULATOR FOR SAFETY TRAINING/ TRAINING DEVICE/
CURRENT APPROACHES TO
R ATTITUDES/ ACCIDENTS// AN EXPERIMENTAL EVALUATION OF A
RESPONSE RATE OF TEAMS// EFFECTS OF
SHAPING OF THREE-MAN TEAMS ON A MULTIPLE
ORGANIZING THE PRESENTATION OF CONCEPTS IN
THE HELP OF MEDIA IN
AUTOMATED
AN EVALUATION OF A BASIC
AN EXPERIMENTAL EVALUATION OF A BASIC
GORY IV PERSONNEL IN BASIC TRAINING/ LOW APTITUDE/ REMEDIAL
RESEARCH AND DEVELOPMENT IN TRAINING AND
UNITED MISSILES BRANCH// SURVEY OF THE
CONSTRAINTS BETWEEN MORE
A THREE-HOUR PERFORMANCE TEST TO EVALUATE JOB
THE TRAINING
OFFENSIVE FUNCTIONING IN RELATION TO EMOTIONAL AROUSAL AND
FACTORS RELATED TO THE
THE TRAINING
-FA-61// RELATIONSHIPS AMONG LEADER
BATTERY
INTERACTION, COORDINATION// INTERACTION CONTENT AND TEAM
CREW DESCRIPTION, DIMENSIONS, AND RADAR CREW
ARMY RESEARCH ON INDIVIDUAL AND UNIT
A PRELIMINARY STUDY OF THE
THE RELATIVE
ARMY DATA ON TAYLOR WAS, INTELLIGENCE, AND
EVALUATION OF FOUR AND
EVALUATION OF FOUR-WEEK AND
INFLUENCE OF A PARTNER ON TOLERANCE FOR A SELF-ADMINISTERED
REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON NON-RADIO
AN ANNOTATED RINLGRAPHY ON THE TROUBLESHOOTING OF
RY ORIENTED ELECTRONIC INFORMATION// RELATIONSHIP BETWEEN
ANALYSIS OF
METHODS AND DEVICES FOR TEACHING DATA FLOW TO
SOME PROBLEMS IN THE DESCRIPTION OF JOBS FOR
PSYCHOLOGICAL RESEARCH IN
MEN, MACHINES AND THE SOFTWARE MIDDLEMAN/
TWO JOBS FOR ONE IN
TWO JOBS FOR ONE IN ELECTRONIC MAINTENANCE/
SOME COMMENTS ON CONTENT AND METHODS BASED ON
TEN NEW CONCEPTS FOR MAINTAINING
DETERMINING TRAINING REQUIREMENTS FOR
IMPLEMENTATION OF THE FORECAST CONCEPT OF
EXPERIMENTAL COMPARISON OF TWO BASIC
AN AUTO-INSTRUCTIONAL PROGRAM ON THE FIRST WEEK OF A BASIC
LUTION OF A METHOD OF PRESENTATION// BASIC
A STUDY OF MATHEMATICAL SKILLS REQUIREMENTS FOR BASIC
IONS FOR TRAINING, PART I -- M-37// ORDNANCE IFC
PLICATIONS FOR TRAINING, PART II -- T-38// ORDNANCE IFC
USING C AND R TO TRANSLATE LOGICAL TS INTO PRACTICAL TS/
FORECAST SYSTEMS ANALYSIS AND TRAINING METHODS FOR
THE TECHNICIAN AS A DATA PROCESSING SYSTEM WITHIN THE
MENT OF TRAINING PROGRAMS FOR FIRST ENLISTMENT PERSONNEL IN
TH IMPLICATIONS FOR TRAINING// ORDNANCE NIKE DETACHMENT
IDENTIFICATION OF
STUDIES OF FIELD ACTIVITIES OF ARMY
THE APPLICATION AND TEST OF THE FORECAST CONCEPT OF
DESIGN AND EVALUATION OF PRINTED JOB AIDS FOR
TROUBLES REPORTED BY
CURRENT PRACTICES IN
DIAGNOSIS AND TREATMENT OF AN ARMY
THE DEVELOPMENT AND EVALUATION OF AN IMPROVED
OF STUDENTS WITH UNSATISFACTORY ACADEMIC AVERAGES IN BASIC
NT AND EVALUATION OF AN IMPROVED RADIO REPAIR COURSE// BASIC
ATTITUDE AND INFORMATION PATTERNS OF OCS
ICATION OF THE ROLE OF DEFENSIVE FUNCTIONING IN RELATION TO
LE GROUP// TENTATIVE OPERATING CHARACTERISTICS AND
TIME ESTIMATION ERROR AS A PREDICTOR OF
THE
SPECIAL LESSON PLANS- GASOLINE
SOME PROBLEMS IN THE RETENTION OF ARMY
ECTING THE LEVEL OF BASIC MILITARY KNOWLEDGE OF ACTIVE ARMY
EFFECTS OF UNCERTAINTY ABOUT ORIGINAL
EXPERIMENTAL ASSESSMENT OF A LIMITED SENSORY AND SOCIAL
VIGILANCE PERFORMANCE AS A FUNCTION OF TASK AND
THE INFLUENCE OF TASK AND
HUMAN
A NOTE ON
THE USE OF PART-TASK TRAINERS AND OPERATIONAL
F VISUAL DEMONSTRATIONS OF SIGNS OF MALFUNCTION AND WEAR IN
IR RECORDS OF FIELD RADIO REPAIRMEN ON NON-RADIO ELECTRICAL
PERFORMANCE/ INDIVIDUAL DIFFERENCES/ TIME TO STUDY/ PROGRAM

DIFFERENCES/ TIME TO STUDY/ PROGRAM ERRORS// MEASURES O
DIFFERENCES// THE INFLUENCE OF PRACTICE FRAMES AND VERB
DIGIT SPAN PROCEDURE//
DIGIT SPAN TEST PROCEDURE//
DIG THAT ATOMIC FOXHOLE//
DIMENSIONS OF SIMULATION//
DIOPTR SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PE
DISAFFECTION IN CHINESE COMMUNIST SOLDIERS DURING THE KOREAN
DISASTER AT LITTLE BIG HORN//
DISCIPLINE//
DISCRIMINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULA
DISCRIMINATION - IDENTIFICATION LESSONS IN FOREIGN LANGUAGE
DISCRIMINATION// DEVELOPMENT AND EVALUATION OF A TACT
DISCUSSION FOR ORGANIZATIONAL PROBLEM SOLVING//
DISCUSSIONS AS A MEANS OF TRAINING LEADERS//
DISPLAYS AND LOW-ALTITUDE NAVIGATION//
DISCUSSION GROUP TECHNIQUES//
DISRUPTION ON SEQUENTIAL DECISIONS//
DISTANCE// RADA
DISTRIBUTIONS IN RATING// SPANCON- S
DRM SCHEDULES OF REINFORCEMENT IN SHAPING COLLECTIVE RESPON
DRIVER ATTITUDES/ ACCIDENTS// AN EXPERIMENTAL EVALUATION
DRIVER SAFETY TRAINING//
DRIVER SIMULATOR FOR SAFETY TRAINING/ TRAINING DEVICE/ DRIVE
DRL AND DRM SCHEDULES OF REINFORCEMENT IN SHAPING COLLECTIVE
DRL-DRM SCHEDULE USING COLLECTIVE REINFORCEMENT//
EDUCATION AND TRAINING- THE LATTICE TECHNIQUE//
EDUCATION AND TRAINING//
EDUCATION IN THE TRAINING OF LOW ALTITUDE AERIAL OBSERVERS//
EDUCATION PROGRAM IN THE ARMY/ APTITUDE/ TRAINING//
EDUCATION PROGRAM IN THE ARMY//
EDUCATION/ MARGINAL PERSONNEL// A STUDY OF CATF
EDUCATION//
EDUCATIONAL PROGRAM OF THE ARTILLERY SCHOOL, ANTICRAFT AND G
EFFECTIVE AND LESS EFFECTIVE PERSONS//
EFFECTIVENESS OF ARMY RADAR MECHANICS//
EFFECTIVENESS OF A TANK HILL TRAINER//
EFFECTIVENESS OF PERFORMANCE// INVESTIGATION OF THE ROLE OF
EFFECTIVENESS OF SPECIAL FORCES PERSONNEL//
EFFECTIVENESS OF THE TRACK AND SUSPENSION TRAINER, DEVICE 29
EFFECTIVENESS RATINGS, INTELLIGENCE AND JOB KNOWLEDGE//
EFFECTIVENESS- ASSESSMENT OF COMPARATIVE PERFORMANCE//
EFFECTI ENESS- STUDY OF SMALL GROUP PROBLEM SOLVING, VERBAL
EFFECTIVENESS//
EFFECTIVENESS//
EFFECTS OF CONTROLLED ISOLATION//
EFFICIENCY OF DIFFERENT TYPES OF ITEMS IN SPECIAL PURPOSE IN
EGN STRENGTH//
EIGHT WEEKS BASIC TRAINING FOR MEN OF VARIOUS INTELLIGENCE L
EIGHT-WEEK BASIC TRAINING FOR MEN OF VARIOUS INTELLIGENCE LE
ELECTRIC SHOCK//
ELECTRICAL EQUIPMENT//
ELECTRICAL EQUIPMENT//
ELECTRONIC MAINTENANCE PROFICIENCY AND THE RETENTION OF THEO
ELECTRONIC MAINTENANCE TASKS//
ELECTRONIC MAINTENANCE PERSONNEL//
ELECTRONIC MAINTENANCE TRAINING//
ELECTRONIC MAINTENANCE TRAINING//
ELECTRONIC MAINTENANCE/ PUBLICATIONS/ TECHNIC'L WRITERS//
ELECTRONIC MAINTENANCE/ ELECTRONIC SYSTEMS ANALYSTS//
ELECTRONIC SYSTEMS ANALYSTS//
ELECTRONIC SYSTEMS TRAINING RESEARCH//
ELECTRONIC SYSTEMS//
ELECTRONIC SYSTEM MAINTENANCE//
ELECTRONIC SYSTEM REPAIR AT THE ORDNANCE GUIDED MISSILE SCHOL
ELECTRONICS COURSES FOR FIRE CONTROL TECHNICIANS//
ELECTRONICS COURSE// EVALUATION OF
ELECTRONICS FOR MINIMALLY QUALIFIED MEN- AN EXPERIMENTAL EVA
ELECTRONICS IN THE U.S. ARMY AIR DEFENSE SCHOOL//
ELECTRONICS MAINTENANCE- ANALYSIS OF ACTIVITIES WITH IMPLICA
ELECTRONICS MAINTENANCE- ANALYSIS OF FIELD ACTIVITIES WITH I
ELECTRONICS MAINTENANCE, TASK ANALYSIS//
ELECTRONICS MAINTENANCE TRAINING//
ELECTRONICS MAINTENANCE COMPLEX//
ELECTRONICS MAINTENANCE MOS S// THE DEVELOP
ELECTRONICS MAINTENANCE RESEARCH//
ELECTRONICS MAINTENANCE PERSONNEL- ANALYSIS OF ACTIVITIES WI
ELECTRONICS MAINTENANCE TRAINING REQUIREMENTS//
ELECTRONICS MAINTENANCE PERSONNEL//
ELECTRONICS MAINTENANCE ON NAVY LORAN EQUIPMENT//
ELECTRONICS REPAIRMEN//
ELECTRONICS REPAIR PERSONNEL IN NIKE ORDNANCE DETACHMENTS//
ELECTRONICS TRAINING IN INDUSTRY//
ELECTRONICS TRAINING COURSE/ JOB ANALYSIS/ CRITERION TEST//
ELECTRONICS TROUBLESHOOTING MANUAL//
ELECTRONICS/ APTITUDE// COURSE ACHIEVEMENT
ELECTRONICS// DEVELOPME
ELECTRONICS//
EMOTIONAL AROUSAL AND EFFECTIVENESS OF PERFORMANCE// INVEST
EMPLOYMENT OF GROUND SURVEILLANCE RADAR IN THE INFANTRY BATT
ENDURANCE IN SUSTAINED SENSORY DEPRIVATION//
ENGINEERING OF TRAINING//
ENGINE FUEL SYSTEM//
ENLISTED PERSONNEL// FACTORS AFF
ENLISTED PERSONNEL//
ENLISTMENT ON REPEATED CHANGE IN OPINION TOWARD THE ARMY//
ENVIRONMENT- SUMMARY RESULTS OF THE HUMPRO PROGRAM//
ENVIRONMENTAL VARIABLES//
ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF VIGILANT PERFO
EPOINDEPENTA AS AN INDEX OF PSYCHOLOGICAL STRESS//
EPOINDEPENTA RESPONSE TO ACUTE PHYSICAL EXERTION//
EQUIPMENT AS TRAINING DEVICES//
EQUIPMENT// THE EFFECTIVENESS O
EQUIPMENT// REPA
ERROR IN THE USE OF THE M1 GUNNERS QUADRANT//
ERRORS// MEASURES OF ABILITY AND PROGRAMED INSTRUCTION

155/D/65/BR-11
155/D/66/BR-11
151/D/62/RR-6
037/R/58/ENDOR
162/F/56/D1
167/F/65/D4
104/R/54/RANGE
127/R/56/TICK
162/F/65/D1
162/F/64/D5
113/R/66/ROTOR
031/R/64/CONTA
031/R/65/CONTA
033/R/55/DECTIS
088/R/56/OFFTR
067/R/64/LOWEN
088/R/55/OFFTR
033/R/57/OECTIS
138/R/65/VICIL
120/R/61/SPAND
151/D/62/RR-6
147/C/66/ES-20
147/C/65/ES-20
147/C/66/ES-20
151/D/62/RR-6
129/D/64/RR-9
075/R/62/METHO
167/F/59/D5
084/R/64/DRSER
104/R/55/READ
104/R/56/READ
026/R/66/CENTER
167/F/59/D8
177/R/52/SCOPE
040/R/61/FIGHT
099/R/55/RADAR
129/BE/5/TRAIN
040/R/61/FIGHT
053/R/54/GAMBI
128/R/54/TRACK
088/R/57/OFFTR
011/R/54/AAA
134/R/66/UNIFEC
011/R/55/AAA
011/R/56/AAA
151/D/62/RR-6
066/R/54/OCS
040/R/59/FIGHT
022/R/56/RASIC
022/R/56/RASIC
040/R/57/FIGHT
106/R/56/REPAI
066/R/57/MAINT
012/R/58/ACHIL
083/R/63/NICOR
128/R/62/TRACE
167/F/59/D3
167/F/65/D5
167/F/66/D1
051/R/65/FORECA
051/R/65/FORECA
159/F/59/D1
079/R/65/MOSAIC
051/R/60/FOREC
051/R/63/FOREC
068/R/60/MAINT
125/R/64/TEXTR
065/R/60/LIMIT
157/F/64/TAS
039/R/66/FICOR
039/R/57/FICOR
051/R/61/FOREC
051/R/64/FOREC
059/R/63/JORAT
059/R/60/JORAT
066/R/61/MAINT
083/R/57/NICOR
083/R/64/NICOR
099/R/55/RADAR
157/F/65/TAS
167/F/61/D3
083/R/57/NICOR
066/R/60/MAINT
099/R/57/RADAR
066/R/65/MAINT
099/R/58/RADAR
106/R/59/REPAI
066/R/53/OCS
040/R/61/FIGHT
123/R/60/SWING
151/D/62/RR-6
167/F/62/D4
065/R/58/LIMIT
025/R/59/CAREE
061/R/55/KNDWH
025/R/61/CAREE
151/D/61/RR-6
138/R/63/VICIL
138/R/63/VICIL
040/R/60/FIGHT
040/R/61/FIGHT
167/F/59/D6
077/R/62/MOBIL
106/R/54/REPAI
049/R/55/FIREP
155/D/65/RR-11

G VOCATIONAL INTEREST BLANK//
 NSORY DEPRIVATION//
 THE EFFECT OF TRAINING ON ACCURACY OF ANGLE
 THE EFFECT OF TRAINING ON ACCURACY OF ANGLE
 A THREE-HOUR PERFORMANCE TEST TO
 L GROUPS//
 RECORDING AND
 APPLICATION OF A METHOD OF
 IMPROVING FLIGHT PROFICIENCY
 DEVELOPMENT AND
 E CONTROL TECHNICIANS/ MAINTENANCE//
 DEVELOPMENT AND
 THE DEVELOPMENT AND
 NAL CONTEXT//
 DEVELOPMENT AND
 NICS//
 DEVELOPMENT AND
 NG DEVICE/ DRIVER ATTITUDES/ ACCIDENTS//
 AN EXPERIMENTAL
 IC ELECTRONICS FOR MINIMALLY QUALIFIED MEN- AN EXPERIMENTAL
 AN
 SHES//
 AN
 ION//
 DEVELOPMENT AND
 INTERROGATION/ TONAL DISCRIMINATION//
 DEVELOPMENT AND
 ISES//
 A COMPARATIVE
 VARIOUS INTELLIGENCE LEVELS//
 DESIGN AND
 F COMPARISON LEVEL AND PREDICTED OUTCOME LEVEL//
 THE EFFECT ON TRAINING AND
 THE
 THE
 HUMAN FACTORS
 INFANTRY OCS
 THE RELATIONSHIP BETWEEN LEADERS COURSE
 SOURCES OF VARIABILITY IN MISSILE UNIT
 THE RELATIONSHIP BETWEEN LEADERS COURSE EVALUATIONS AND OCS
 OFFICER TRAINING RESEARCH AND ITS IMPLICATIONS FOR
 SIMULATION
 PARTICIPANTS AND FORWARD VOLUNTEER OFFICER GROUPS TO ATOMIC
 HUMAN EOSINOPHIL RESPONSE TO ACUTE PHYSICAL
 THE ROLE OF
 THE ROLE OF
 THE ROLE OF
 RADAR TARGET DETECTION AS INFLUENCED BY
 OR COMPARING NIKE AJAX IFC MAINTENANCE MEN WITH AND WITHOUT
 ST- PART I - COMPARISON OF MECHANICS WITH AND WITHOUT FIELD
 COED - A DEVICE FOR THE
 A FOLLOW-UP STUDY OF
 O REPAIRMEN PROFICIENCY TEST//
 A FOLLOW-UP STUDY OF
 LANCE TASK//
 THE ROLE OF
 TUDE VISUAL AERIAL OBSERVATION- A DESCRIPTION OF FIVE FIELD
 NING A RESEARCH PROGRAM ON INSTRUCTIONAL METHODS//
 CK 1- A PSYCHOLOGICAL STUDY OF TROOP REACTIONS TO AN ATOMIC
 CK 1- A PSYCHOLOGICAL STUDY OF TROOP REACTIONS TO AN ATOMIC
 SUMMARY OF LITERATURE REVIEW OF
 REQUIREMENTS FOR RESEARCH ON USES OF THE UNARMED
 INVARINANCE OF MOTIVATIONAL MEASURES DERIVED BY
 LOW-ALTITUDE AIRCRAFT//
 EFFUL AMERICAN INFANTRY SMALL-UNIT ACTIONS//
 SOME
 MODE/ TEST FORM, AND MEASURE ON ACQUISITION OF SEMI-ORDERED
 TRESSFUL SITUATIONS//
 RELATIONSHIP OF LIFE HISTORY,
 PEASANT
 DRAFT POLICY STATEMENT ON EFFECTS OF
 SE F-RATINGS OF
 THE EFFECT OF VARIOUS INTERVIEW TECHNIQUES IN EVOKING
 SELF-RATINGS OF FEAR AS A RESEARCH INSTRUMENT IN
 R ORDERING TRAINING PRINCIPLES AND TRAINING CONTENT//
 PROGRAMED INSTRUCTION UNDER A DEMAND
 FUNCTIONAL AND APPEARANCE
 //
 THE AAFCS M-33 MECHANIC- ANALYSIS OF
 / TASK ANALYSIS//
 THE AAFCS M-33 OPERATOR- ANALYSIS OF
 STUDIES OF
 T-3R//
 ORDNANCE IFC ELECTRONICS MAINTENANCE- ANALYSIS OF
 FOR COLLECTING ATTITUDE DATA FROM COMPANY COMMANDERS UNDER
 NCY TEST- PART I - COMPARISON OF MECHANICS WITH AND WITHOUT
 W ALTITUDE VISUAL AERIAL OBSERVATION- A DESCRIPTION OF FIVE
 INFERRED CORRELATION BETWEEN COMBAT PERFORMANCE AND SOME
 A FACTOR ANALYSIS OF
 IDENTIFICATION OF IMPORTANT SKILLS IN
 TER-RECEIVER SURVEY//
 REPAIR RECORDS OF
 CASE HISTORIES/ SURVEY//
 REPAIR RECORDS OF
 ETS/ JOR ANALYSIS//
 REPAIR RECORDS OF
 ANALYSIS//
 REPAIR RECORDS OF
 FOLLOW-UP STUDY OF EXPERIMENTALLY AND CONVENTIONALLY TRAINED
 STUDY OF EXPERIMENTALLY TRAINED AND CONVENTIONALLY TRAINED
 DEVELOPMENT AND EVALUATION OF AN IMPROVED
 ACTIVITIES OF
 /
 ENT, AND RELATIONSHIP TO COMBAT//
 EXPERIMENTAL DESIGN FOR
 IDITY OF TWO TYPES OF STRESS-SENSITIVE MEASURES IN MILITARY
 THE CONDUCT OF
 A
 AN AERIAL OBSERVATION, PART II- SUMMARY DATA FROM TACTICAL
 NO DUMMY TARGETS//
 A
 HUMAN AERIAL OBSERVATION, PART II- DESCRIPTION OF TACTICAL
 THE HEAVENS AND THE
 PROFILE OF A
 FIGHTER I- AN ANALYSIS OF COMBAT
 OPS BE RATTLEPROOFED/ STRESS/ COMBAT TRAINING/ SELECTION OF
 TELLIGENCE AND RACE ON THE CORRELATION BETWEEN BARRON-WELSH
 REVERSIBILITY OF THE AFTER-IMAGES OF AMBIGUOUS
 OF A METHOD FOR PREDICTING FACTUAL LEARNING FROM A TRAINING
 TRAINING LEADERS WITH SOUND
 ESTABLISHING MILITARY RESEARCH REQUIREMENTS//
 ESTIMATING THE INTERCORRELATIONS BETWEEN SCALES ON THE STROD
 ESTIMATION ERROR AS A PREDICTOR OF ENDURANCE IN SUSTAINED SE
 ESTIMATION/ AERIAL NAVIGATION TRAINING/ MAP READING//
 ESTIMATION//
 EVALUATE JOB EFFECTIVENESS OF ARMY RADAR MECHANICS//
 EVALUATING THE PERFORMANCE OF INDIVIDUALS AS MEMBERS OF SMALL
 EVALUATING TRAINING//
 EVALUATING TRAINING//
 EVALUATION IN ARMY HELICOPTER PILOT TRAINING//
 EVALUATION OF AN EXPERIMENTAL ORDNANCE RADAR REPAIR COURSE//
 EVALUATION OF AN EXPERIMENTAL PROGRAM OF INSTRUCTION FOR FIR
 EVALUATION OF AN IMPROVED ELECTRONICS TROUBLESHOOTING MANUAL
 EVALUATION OF AN IMPROVED FIELD RADIO REPAIR COURSE/ FUNCTION
 EVALUATION OF AN IMPROVED RADIO REPAIR COURSE/ BASIC ELECTRO
 EVALUATION OF A DRIVER SIMULATOR FOR SAFETY TRAINING/ TRAINI
 EVALUATION OF A METHOD OF PRESENTATION//
 EVALUATION OF A NEW RETICLE DESIGN IN GUN LAYING AGAINST FLA
 EVALUATION OF A NEW RETICLE DESIGN FOR GUNLAYING AGAINST FLA
 EVALUATION OF A PROGRAM OF INSTRUCTION IN BASIC LAND NAVIGAT
 EVALUATION OF A TACTICAL MANDARIN CHINESE LANGUAGE COURSE/ I
 EVALUATION OF COMPONENT SKILL AND TOTAL SKILL TRAINING EXERC
 EVALUATION OF FOUR AND FIGHT WEEKS BASIC TRAINING FOR MEN OF
 EVALUATION OF PRINTED JOB AIDS FOR ELECTRONICS REPAIRMEN//
 EVALUATION OF PROSPECTIVE SOCIAL RELATIONSHIPS- A FUNCTION O
 EVALUATION OF REVIEW FOR PROFICIENCY TESTING//
 EVALUATION OF SELF-INSTRUCTIONAL FOREIGN LANGUAGE COURSES//
 EVALUATION OF SYSTEMS-ANALYTIC TRAINING PROGRAMS//
 EVALUATION OF THE TANK, COMBAT FULL TRACKED- 105MM GUN, MAO/
 EVALUATIONS AND COMBAT PERFORMANCE//
 EVALUATIONS AND OCS EVALUATIONS//
 EVALUATIONS/ OPERATIONAL READINESS TESTS/ UNIT PROFICIENCY//
 EVALUATIONS//
 EXECUTIVE TRAINING//
 EXERCISES IN AREA TRAINING/ CROSS-CULTURAL COMMUNICATION//
 EXERCISES//
 DESERT ROCK V- REACTIONS OF TROOP
 EXERTION//
 EXPECTANCY IN AUDITORY VIGILANCE//
 EXPECTANCY IN AUDITORY VIGILANCE//
 EXPECTANCY IN SS RESPONSES TO SUSTAINED SENSORY DEPRIVATION//
 EXPERIENCE AND TRAINING//
 EXPERIENCE//
 DEVELOPMENT AND USE OF A PERFORMANCE TEST F
 EXPERIENCE//
 THE AAFCS M-33 MECHANIC PROFICIENCY TE
 EXPERIENCES AT DESERT ROCK VIII//
 EXPERIMENTAL DESIGN FOR FIELD STUDIES IN LEADERSHIP//
 EXPERIMENTAL STUDY OF MAN-MACHINE SYSTEMS//
 EXPERIMENTALLY AND CONVENTIONALLY TRAINED FIELD RADIO REPAIR
 EXPERIMENTALLY TRAINED AND CONVENTIONALLY TRAINED FIELD RAD
 EXPERIMENTER ATTITUDE AND CONTINGENT REINFORCEMENT IN A VIGI
 EXPERIMENTS//
 TRAINING RESEARCH ON LOW ALTI
 EXPLORATORY INVESTIGATIONS CONDUCTED FOR THE PURPOSE OF PLAN
 EXPLOSION-ADDITIONAL DATA RELATED TO ATTRITION//
 DESERT RO
 EXPLOSION//
 DESERT RO
 EXTENDED OPERATIONS//
 EYE IN THE COLLECTION OF BATTLEFIELD INFORMATION//
 FACTOR ANALYSIS OF CRITERION ORIENTED RATINGS//
 FACTOR ANALYSIS OF FIELD NAVIGATION SKILLS//
 A
 A
 FACTOR ANALYSIS//
 FACTORS INFLUENCING THE JUAL DETECTION AND RECOGNITION OF
 FACTORS WHICH HAVE CONTRIBUTED TO BOTH SUCCESSFUL AND UNSUCCE
 FACTUAL MATERIALS//
 EFFECTS OF TRAINING RESPONSE
 FAMILY BACKGROUND, AND INTELLIGENCE DATA TO PERFORMANCE IN S
 FATALISM AND SOCIOECONOMIC INNOVATION/ CROSS-CULTURAL CHANGE
 FATIGUE AND CONFINEMENT//
 FEAR AS A RESEARCH INSTRUMENT IN FEAR-INVOKING SITUATIONS//
 FEAR RESPONSES//
 FEAR-INVOKING SITUATIONS//
 FEASIBILITY OF DEVELOPING A TASK CLASSIFICATION STRUCTURE FO
 FEEDBACK SCHEDULE//
 FIDELITY OF TRAINING DEVICES FOR FIXED-PROCEDURES TASKS//
 FIELD ACTIVITIES AND PROBLEMS WITH IMPLICATIONS FOR TRAINING
 FIELD ACTIVITIES AND PROBLEMS WITH IMPLICATIONS FOR TRAINING
 FIELD ACTIVITIES OF ARMY ELECTRONICS MAINTENANCE PERSONNEL//
 FIELD ACTIVITIES WITH IMPLICATIONS FOR TRAINING, PART II --
 THE USE OF THE O-SORT
 FIELD CONDITIONS//
 THE AAFCS M-33 MECHANIC PROFICIE
 FIELD EXPERIENCE//
 TRAINING RESEARCH ON LO
 FIELD EXPERIMENTS//
 FIELD LABORATORY STRESSES//
 FIELD NAVIGATION SKILLS//
 FIELD NAVIGATION//
 FIELD RADIO REPAIRMEN ON THE RT-66, RT-47, OR RT-4A TRANSMIT
 FIELD RADIO REPAIRMEN ON THE STANDARDIZED SERIES OF FM SETS/
 FIELD RADIO REPAIRMEN ON FM TRANSMITTERS AND MAN-PACKED FM S
 FIELD RADIO REPAIRMEN ON AM TRANSMITTERS AND RECEIVERS/ TASK
 FIELD RADIO REPAIRMEN ON NON-RADIO ELECTRICAL EQUIPMENT//
 FIELD RADIO REPAIRMEN//
 FIELD RADIO REPAIRMEN PROFICIENCY TEST//
 A FOLLOW-UP
 FIELD RADIO REPAIR COURSE/ FUNCTIONAL CONTEXT//
 FIELD RADIO REPAIR PERSONNEL WITH IMPLICATIONS FOR TRAINING/
 FIELD STRESS- A PRELIMINARY STUDY OF ITS STRUCTURE, MEASUREM
 FIELD STUDIES IN LEADERSHIP//
 FIELD STUDIES- EXPERIMENTATION AND DISCUSSION//
 VAL
 FIELD STUDIES//
 FIELD STUDY COMPARISON OF VISUAL SEARCH METHODS IN AERIAL OR
 RESEARCH ON HUM
 FIELD TESTS//
 RESEARCH ON HUM
 FIELD TEST OF VISUAL DETECTION AND IDENTIFICATION FOR REAL A
 RESEARCH ON
 FIELD TEST//
 RESEARCH ON
 FIELDS DESCRIPTION OF HUMRO RESEARCH//
 FIGHTER//
 FIGHTERS AND NON-FIGHTERS//
 FIGHTERS//
 THE TRUMPET SOUNDS--CAN OUR TRD
 FIGURE PREFERENCES AND PERFORMANCE IN COMBAT// EFFECT OF IN
 FIGURES//
 TEST
 FILM//
 TEST
 FILMS AND DISCUSSION GROUP TECHNIQUES//
 FILMS AND GROUP DISCUSSIONS AS A MEANS OF TRAINING LEADERS//

214

A PROCEDURAL GUIDE TO THE PROGRAMMING OF INSTRUCTION- PRELIMINARY REPORT/ 125/R/62/TEXT

INSTRUCTORS' GUIDE - ADVANCED LAND NAVIGATION- A PROTO-TYPE COURSE// 109/R/63/FILE

INSTRUCTOR'S GUIDE- PATROL 1, LAND NAVIGATION- BASIC INSTRUCTION// 091/R/59/PATRO

EDUCATIONAL PROGRAM OF THE ARTILLERY SCHOOL, ANTICRAFT AND GUIDED MISSILES BRANCH// SURVEY OF THE 117/R/52/SCOPE

DEPENDENCY ON SUPERVISORS, PROFICIENCY AND MORALE IN ON-SITE TRAINING OF 066/R/60/LOCKO

ON-SITE TRAINING OF GUIDED MISSILE OPERATORS// 066/R/60/LOCKO

ON-SITE TRAINING OF GUIDED MISSILE OPERATORS- EVALUATION MATERIALS// 066/R/60/LOCKO

IONS TO THIRD MEETING OF NIKE ZEUS TRAINING PANEL, ORDNANCE GUIDED MISSILE SCHOOL// HIMMRO PRESENTAT 159/F/59/01

THE EFFECTIVENESS OF 90MM TANK GUN FIRE AGAINST THE 18-INCH SEARCHLIGHT// 018/R/59/ARMORN

CONSISTENCY IN LAYING THE MAIN TANK GUN IN A LIVE-FIRE SITUATION// 049/R/57/FIREP

AN EVALUATION OF A NEW RETICLE DESIGN IN GUN LAYING AGAINST FLASHES// 018/R/63/ARMORN

AN EVALUATION OF A NEW RETICLE DESIGN FOR GUNLAYING AGAINST FLASHES// 018/R/64/ARMORN

AN EXPERIMENTAL COMPARISON OF THREE ATGM GUNNER TRAINING PROGRAMS// 049/R/62/FIREP

ERROR IN THE USE OF THE M1 GUNNER'S CHADRANT// 049/R/55/FIREP

EFFECT OF INCREASED SUBCALIBER SUBSTITUTION TRAINING ON 90 MM GUNNER'S PROFICIENCY// THE EF 053/R/55/GUNNE

THE TRAINING EFFECTIVENESS OF TABLE 11 OF THE TANK GUNNER / QUALIFICATION COURSE// 049/R/59/FIREP

VICTORY BEFORE DAWN ARMOR NIGHT GUNNER// 018/R/59/ARMORN

CONSISTENCY IN RE-LAYING AS A FACTOR IN TANK GUNNER// 053/R/55/GUNNE

EXPLORATION FOR A SURVEY OF OPINIONS REGARDING OPERATION 143/R/54/VOLAI

STMENT INTENTIONS WITH LATER REENLISTMENT BEHAVIOR IN THREE GYROSCOPE UNITS// A COMPARISON OF REENLI 135/R/55/INIRO

A PRELIMINARY TRAINING STUDY OF THE H-34 COCKPIT-PROCEDURES TRAINER// 135/R/55/INIRO

REFERENCE MEASUREMENT AND EXPERIMENTAL MANIPULATION OF VISUAL HALLUCINATIONS// THE OCC 105/R/60/REFLE

A HOW TO DESIGN THE HANDBOOK FOR PROGRAMMERS OF AUTOMATED INSTRUCTION// 151/R/62/RR-6

S ENCOUNTERED BY AMERICANS WORKING OVERSEAS- AN INSTRUCTORS' HANDBOOK MATERIALS// 125/R/63/TEXT

CE AIDS FOR JUNIOR OFFICERS/ SAM BATTERY OFFICERS/ JUP AID/ HANDBOOK// 059/R/60/JOBT

A DESCRIPTION OF WORK FLOW IN SUPPORT OF A HANDBOOK// 016/R/65/AREA

THE EFFECT OF MOCK TOWER HANDBOOKS/ TRAINING REQUIREMENTS// PERFORM 114/R/65/SANOFF

LET S TAKE A LOOK AT NEW PROJECT TASK HAWK MISSILE SYSTEM// 079/R/64/MOSAI

A REVIEW OF THE ANALYSIS OF VISUAL DISCRIMINATION IN THE LIGHT WEAPONS HAVENS AND THE FIELDS DESCRIPTION OF HIMMRO RESEARCH// 018/R/61/ARMORN

AVIATOR PERFORMANCE IN THE LIGHT WEAPONS HEIGHT IN AIRBORNE TRAINING// 055/R/56/HILO

CHANGES IN FLIGHT TRAINEE PERFORMANCE FOLLOWING SYNTHETIC HELPFIRE// 054/R/62/HELFI

TRAINING/ TRAINING DEVICE/ TRAINING TRANSFER// REDUCTION OF HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ VISUAL CUES/ 113/R/66/ROTOR

IMPROVING FLIGHT PROFICIENCY EVALUATION IN ARMY HELICOPTER DURING MAP-OF-THE-EARTH FLIGHT// 054/R/64/HELFI

M OF FLIGHT TRAINING QUALITY CONTROL AND ITS APPLICATION TO HELICOPTER FLIGHT TRAINING/ ATTRITION/ TRANSFER OF TRAINING/ 036/R/66/ECHM

LET S TAKE A LOOK AT QUALITY CONTROL IN HELICOPTER FORMATION FLYING// 063/R/63/LIFT

TARGET ACQUISITION FROM THE ARMED HELICOPTER PILOT ATTRITION THROUGH SYNTHETIC CONTACT FLIGHT 036/R/65/ECHM

A QUALITY CONTROL PROGRAM APPLIED TO HELICOPTER PILOT COURSE// 063/R/57/LIFT

F REVISION OF NIKE PLATOON LEADER JOB DESCRIPTIONS- AJAX TO HELICOPTER PILOT TRAINING// A SYSTF 063/R/62/LIFT

SNAP PROGRAMING- TROUBLESHOOTING THE IMPROVED NIKE HERCULES HELICOPTER TRAINING// 063/R/63/LIFT

REAN AND CHINESE PRISONERS OF WAR IN THE KOREAN CONFLICT- A HELICOPTER// 054/R/62/HELFI

T DETECTABILITY ON AN A-TYPE RADAR DISPLAY AS A FUNCTION OF HELICOPTER TRAINING// 063/R/63/LIFT

T DETECTABILITY ON AN A-SCOPE AS INFLUENCED BY VERTICAL AND HELICOPTER// 063/R/63/LIFT

OF OVERSEAS DUTY ON THE ATTITUDES OF AMERICAN TROOPS TOWARD HELICOPTER TRAINING// 114/R/60/SANOFF

PROTECTION UPON THE PERFORMANCE OF SELECTED COMBAT SKILLS IN TH 051/R/63/FNREC

RESEARCH ON MERCURY// 127/R/58/TICK

RESEARCH ON HISTORICAL ANALYSIS// THE POLITICAL BEHAVIOR OF KN 138/R/62/VIGIL

AL FIELD TESTS// HORIZONTAL AND VERTICAL VIDEO AMPLIFICATION// TARGE 138/R/62/VIGIL

SOME RELATIONSHIPS BETWEEN TRAINING RESEARCH AND HORIZONTAL VIDEO AMPLIFICATION// TARGE 013/R/54/ACROS

ORY STUDIES OF SENSORY DEPRIVATION- FINDINGS OF INTEREST TO MOST POPULATIONS// SOME EFFECTS 095/R/61/PROTE

TRAINING ORIENTED HOT WEATHER// THE EFFECTS OF CBR P 064/R/60/DHSE

OSMM GUN, M40// HUMAN AERIAL OBSERVATION, PART I- SUMMARY// 084/R/60/DHSE

EM DESIGN AND DEVELOPMENT// HUMAN AERIAL OBSERVATION, PART II- DESCRIPTION OF TACTICAL F 084/R/60/DHSE

APHY// HUMAN AERIAL OBSERVATION, PART II- SUMMARY DATA FROM TACTIC 084/R/60/DHSE

LICATION TO ARMOR// HUMAN ENGINEERING IN THE DESIGN OF WEAPON SYSTEMS// 147/F/60/07

R// HUMAN ENGINEERING// LABORAT 151/R/63/RR-6

SOME CONSIDERATIONS ON HUMAN ENGINEERING// 040/R/61/FIGHT

A SURVEY OF HUMAN EROSINOPHIL RESPONSE TO ACUTE PHYSICAL EXERTION// 147/F/64/10

A SURVEY OF HUMAN FACTORS ENGINEERING OF ARMY AIRCRAFT// 049/R/61/FIREP

A BIBLIOGRAPHY OF HUMAN FACTORS EVALUATION OF THE TANK, COMBAT FULL TRACKED- 1 137/R/61/JUPSTR

SUPPLEMENT TO A BIBLIOGRAPHY OF HUMAN FACTORS INFORMATION AS AN INTEGRAL PART OF WEAPON SYST 147/F/64/09

I- TRAINING PROBLEMS AND REQUIREMENTS// HUMAN FACTORS INFORMATION DEVELOPMENTS// 095/R/61/PROTE

III- TECHNICAL APPENDICES// HUMAN FACTORS IN CBR OPERATIONS// 028/R/63/CIVIC

THE SHOOTING TEAM --RECOMMENDED OPERATING PROCEDURES// HUMAN FACTORS IN CIVIC ACTION- A SELECTED ANNOTATED BIBLIOG 162/F/64/01

INTERFACES BETWEEN OPERATIONS RESEARCH AND HUMAN FACTORS IN COLD WEATHER OPERATION// 147/F/59/01

ARMY RESEARCH IN HUMAN FACTORS IN FUTURE COMBAT// 018/R/57/ARMORN

THE IMPROVEMENT OF HUMAN FACTORS IN MILITARY NIGHT OPERATIONS (WITH SPECIAL APP 029/R/60/CILDS

DOUBLE TENTH- RESEARCH- HUMAN FACTORS IN MILITARY PERFORMANCE IN EXTREME COLD WEATHE 099/R/53/RADAR

IDENTIFICATION OF STATIONARY HUMAN FACTORS IN RADAR OPERATION AND MAINTENANCE// 157/E/65/TAS

TRAINING METHODS FOR SIMULATORS OF REMOTE CONTROL HUMAN FACTORS IN RADAR OPERATION AND MAINTENANCE// 157/E/65/TAS

LET S TAKE A LOOK AT HUMAN FACTORS IN TACTICAL NUCLEAR COMBAT/BRIEFING// 029/R/58/CLASS

WHAT HUMAN FACTORS IN TACTICAL NUCLEAR COMBAT/TECHNICAL REPORT// 029/R/58/CLASS

WHAT HUMAN FACTORS IN THE OPERATION OF THE NIKE AJAX SYSTEM, PART 000/R/62/OVERO

WHAT HUMAN FACTORS IN THE OPERATION OF THE NIKE AJAX SYSTEM, PART 147/F/64/04

WHAT HUMAN FACTORS IN THE OPERATION OF NIKE AJAX SYSTEM, PART II- 147/F/60/01

HUMAN FACTORS RESEARCH// 147/F/64/02

HUMAN FACTORS// 147/F/63/03

HUMAN PERFORMANCE THROUGH RESEARCH// 147/F/61/04

HUMAN PROCESSING OF OLFACTORY INFORMATION// 078/R/60/MONDL

HUMAN RESOURCES// 049/R/62/FIREP

HUMAN-GUIDED MISSILE SYSTEMS// 142/F/61/05

HIMMRO ACTIVITIES, 1961// 159/F/57/03

WHAT HIMMRO IS DOING, JANUARY 1956-JUNE 1957// 159/F/58/02

WHAT HIMMRO IS DOING, JULY 1957 - JUNE 1958// 159/F/60/01

WHAT HIMMRO IS DOING, JULY 1958 - JUNE 1959// 159/F/54/01

WHAT HIMMRO IS DOING, RESEARCH BULLETIN 1, MARCH 1954// 159/F/55/01

WHAT HIMMRO IS DOING, RESEARCH BULLETIN 2, MARCH 1954// 159/F/61/01

WHAT HIMMRO IS DOING, RESEARCH BULLETIN 4, AUGUST 1961// 159/F/62/01

WHAT HIMMRO IS DOING, RESEARCH BULLETIN 5, SEPTEMBER 1962// 159/F/56/01

WHAT HIMMRO IS DOING, 1955, RESEARCH BULLETIN 3, APRIL 1954// 147/F/61/04

HIMMRO ORGANIZATION AND RESEARCH, 1961// 142/F/61/04

HIMMRO RESEARCHERS ARE DOING, 1961// 018/R/61/ARMORN

HIMMRO RESEARCH// 147/F/57/03

HYPOTHESES ABOUT THE STRUCTURE OF QUALITATIVE VARIABLES// 075/R/53/A-TM

HYPOTHESIS OF INTRA-LIST GENERALIZATION// 147/F/55/01

IBM APPLICATION TO SCALING PROBLEMS// 044/R/59/DHSE

IDENTIFICATION FOR REAL AND DUMMY TARGETS// 083/R/64/HICOR

IDENTIFICATION OF ELECTRONICS MAINTENANCE TRAINING REQUIREME 072/R/56/HAPUS

IDENTIFICATION OF IMPORTANT SKILLS IN FIELD NAVIGATION// 018/R/61/ARMORN

IDENTIFICATION OF MUNSSELL HUES UNDER RED ILLUMINATION// 074/R/60/MONDL

IDENTIFICATION OF STATIONARY HUMAN TARGETS// 072/R/57/HAPUS

IDENTIFICATION OF THE IMPORTANT SKILLS IN DAYLIGHT LAND NAVI 088/R/61/DEFT

IDENTIFYING AND MEASURING LEADERSHIP CHARACTERISTICS OF THE 147/F/62/03

IDENTIFYING TRAINING NEEDS AND TRANSLATING THEM INTO RESEAR 127/P/59/TICK

IDEOLOGICAL PARTICIPATION- STUDY OF CCF IN KOREAN WAR// 040/R/58/FIGHT

IDIOSYNCRATIC AND NONTHEFTIC STRESSES// 039/R/56/FICON

IFC ELECTRONICS MAINTENANCE- ANALYSIS OF ACTIVITIES WITH IMP

216

217

THE RELATIONSHIP BETWEEN 1000 RANGE AND ACCURACY OF M1 RIFLE SCORES OBTAINED ON THE NIZATION OF KOREAN POWS IN UNC POW CAMPS, 1950-51//
COLLABORATION AND RESISTANCE BEHAVIOR OF U.S. ARMY POWS IN
COLLABORATION AND RESISTANCE BEHAVIOR OF U.S. ARMY POWS IN
LLABORATION AND RESISTANCE BEHAVIOR AMONG U.S. ARMY POWS IN
OTIVATIONS OF SOLDIERS FROM THE CHINESE COMMUNIST FORCES IN
A HISTORICAL ANALYSIS// THE POLITICAL BEHAVIOR OF
LEADERSHIP IN RIFLE SQUADS ON THE
Y AND DISAPPECTION IN CHINESE COMMUNIST SOLDIERS DURING THE
LICATIONS- ANALYSIS OF SOCIAL AND POLITICAL ORGANIZATION OF
UNIST DEMAND FOR IDEOLOGICAL PARTICIPATION- STUDY OF CCF IN
THE ADVENT OF THE
RESEARCH IN MILITARY
ERRED CORRELATION BETWEEN COMBAT PERFORMANCE AND SOME FIELD
EST TO HUMAN ENGINEERING//
A SERIES OF EXPERIMENTAL INVESTIGATIONS OF THE
INSTRUCTORS GUIDE - ADVANCED
INSTRUCTOR S GUIDE, PATROL 1,
INSTRUCTION// BASIC INSTRUCTION IN
IDENTIFICATION OF THE IMPORTANT SKILLS IN DAYLIGHT
TY OF THE INDIVIDUAL SOLDIER TO EMPLOY A MAP AND COMPASS IN
LOPMENT AND EVALUATION OF A PROGRAM OF INSTRUCTION IN BASIC
THE APPLICATION OF PROGRAMED INSTRUCTION TO FOREIGN
/ SOME
ION// A SELF-INSTRUCTIONAL TACTICAL
DEVELOPMENT AND EVALUATION OF A TACTICAL HANDBOOK IN CHINESE
PROBLEMS IN PROGRAMING AND INTENSIVE ORAL-AURAL
PROGRAMING AN INTENSIVE ORAL-AURAL
ILITY STUDY OF A SPECIAL, MACHINE-TEACHED ORAL-AURAL RUSSIAN
THE EVALUATION OF SELF-INSTRUCTIONAL FOREIGN
STUDY// A LIMITED
OR TONAL DISCRIMINATION - IDENTIFICATION LESSONS IN FOREIGN
EVALUATION OF TRAINING METHOD FOR THE RAPID ACQUISITION OF
AN APPROACH TO AUTOMATIVE
SOME PSYCHOLOGICAL ASPECTS IN FOREIGN
A SHORT SELF-INSTRUCTIONAL, FUNCTIONAL COURSE IN A FOREIGN
CROSS-CULTURAL PROBLEMS OF U.S. ARMY PERSONNEL IN
CEPTION// THE RELATIONSHIP BETWEEN
THE PRESENTATION OF CONCEPTS IN EDUCATION AND TRAINING- THE
DEVELOPMENT AND USE OF PROFICIENCY TESTS FOR MIKE SYSTEM
CONSISTENCY IN
SIMPLIFICATION OF THE PANEL
TO ARMY BASIC TRAINING COMPANIES// RESULTS OF THE
// RELATIONSHIPS AMONG
THE REVISION OF MIKE PLATOON
INTERPERSONAL KNOWLEDGE AND RATED
THE RELATIONSHIP BETWEEN
A FOLLOW-UP STUDY OF NCO
TRAINING
LEADERSHIP CLIMATE FOR TRAINEE
FILMS AND GROUP DISCUSSIONS AS A MEANS OF TRAINING
CHALK TALK FOR PLATOON
MEASUREMENT OF THE JOB PROFICIENCY OF MIKE AJAX PLATOON
THE USE OF FOLLOWER STODGES FOR FIELD EVALUATION OF
A SURVEY ON MORALE AND
ND EXPERIENCED COMBAT COMMANDERS//
// IDENTIFYING AND MEASURING
A PROGRAM OF
A STUDY OF
UESTIONNAIRE//
DINGS// REPORT OF THE
COMMUNICATION AND
PRMINANTS, CHARACTERISTICS, AND COVARIATES OF BASIC TRAINEE
TASK NCO- A REPORT ON SOME ARMY RESEARCH IN THE
THE DESIGN FOR A PARAMETRIC STUDY OF A
AREAS OF NCO II// REPORT OF INTEGRATED AND INFORMAL
LEARNING TO LEAD/
A REVIEW OF RECENT RESEARCH AND DEVELOPMENT ON MILITARY
ONCOMMISSIONED OFFICERS, A SUMMARY REPORT OF PILOT STUDIES/
DEVELOPING A FUNCTIONAL THEORY OF
PERSONALITY CORRELATES OF
A METHOD FOR STUDYING
EXPERIMENTAL DESIGN FOR FIELD STUDIES IN
CURRENT VIEWS ON PSYCHOLOGY AND
COMMAND
SMALL GROUP
PROGRAMMED
ING ASSOCIATIONS// VERBAL
SES// VERBAL PAIRED-ASSOCIATE
SES// SUPPLEMENTARY REPORT- VERBAL PAIRED-ASSOCIATE
WHOLE AND PART METHODS IN
TEST OF A METHOD FOR PREDICTING FACTIAL
ARE INITIAL RESPONSES TO A
RESEARCH- SOME DISSONANCES//
A TEST OF A METHOD OF CONVERTING PROFICIENCY SCORES TO
T-TERM MEMORY- AN ANNOTATED BIBLIOGRAPHY/ PAIRED-ASSOCIATE
DISCRIMINATION - IDENTIFICATION LESSONS IN FOREIGN LANGUAGE
EFFECTIVENESS OF INCREASED REPETITION IN CLASSROOM
STATISTICAL JUDGMENT- A STUDY OF MEAN
CAPABILITIES AND LIMITATIONS OF THE
SPECIAL
THE GUIDING ASSUMPTIONS OF
PERFORMANCE IN STRESSFUL SITUATIONS// RELATIONSHIP OF
KNOWN-DISTANCE RANGE RIFLE SCORES//
KNOWN-DISTANCE RANGE//
KOJE-DO COMPLICATIONS- ANALYSIS OF SOCIAL AND POLITICAL ORGA
KOREA// FACTORS RELATED TO THE
KOREA// CORRELATES OF CO
KOREA// METHODOLOGICAL CONSIDERATIONS- STUDY OF M
KOREAN AND CHINESE PRISONERS OF WAR IN THE KOREAN CONFLICT-
KOREAN FRONT LINE//
KOREAN HOSTILITIES// DETERMINANTS OF LOYALT
KOREAN POWS IN UNC POW CAMPS, 1950-51// KOJE-DO COMP
KOREAN WAR// ADJUSTMENT OF CHINESE SOLDIERS TO COMM
KVLCTYSTICS/ TEAM APPROACH TO TRAINING PROBLEMS//
LABORATORY//
LABORATORY STRESSES// INF
LABORATORY STUDIES OF SENSORY DEPRIVATION- FINDINGS OF INTER
LAND NAVIGATION PROCESS//
LAND NAVIGATION- A PHOTO-TYPE COURSE//
LAND NAVIGATION- BASIC INSTRUCTION//
LAND NAVIGATION- DEVELOPMENT AND EVALUATION OF A PROGRAM OF
LAND NAVIGATION, PROFICIENCY TEST MANUAL//
LAND NAVIGATION//
LAND NAVIGATION// IMPROVING THE ABILI
LAND NAVIGATION// DEVE
LANGUAGE AND LITERACY TRAINING//
LANGUAGE ASPECTS OF THE U.S. ADVISORY ROLE IN SOUTH VIETNAM//
LANGUAGE COURSE IN RUSSIAN/ INTERROGATION/ VOCABULARY SELECT
LANGUAGE COURSE/ INTERROGATION/ TONAL DISCRIMINATION//
LANGUAGE COURSE//
LANGUAGE COURSE// A FFASIB
LANGUAGE COURSE//
LANGUAGE COURSES//
LANGUAGE FOR OBTAINING COMBAT INFORMATION FROM POWS- A PILOT
LANGUAGE LEARNING// A SELF-INSTRUCTIONAL PROGRAM F
LANGUAGE PROGRAMING FOR THE FOREIGN STUDENTS//
LANGUAGE SKILLS// DEVELOPMENT AND
LANGUAGE TEACHING//
LANGUAGE TRAINING//
LANGUAGE// A PSYCHOLOGICAL APPROACH TO THE DESIGN OF
LAD RUDDISH- A VEHICLE FOR TECHNICAL CHANGE//
LADS AND THEIR IMPLICATIONS FOR AREA TRAINING//
LATERAL PHORIA AND SOME TESTS OF REAL AND APPARENT DEPTH PER
LATTICE TECHNIQUE// ORGANIZING
LAUNCHING PLATOON OPERATORS//
LAYING THE MAIN TANK GUN IN A LIVE-FIRE SITUATION//
LAYOUT ON STANDARD SERIES TANK RADIOS//
LEADER BEHAVIOR DESCRIPTION QUESTIONNAIRE TECHNIQUE APPLIED
LEADER EFFECTIVENESS RATINGS, INTELLIGENCE AND JOB KNOWLEDGE
LEADER JOB DESCRIPTIONS- AJAX TO HERCULES//
LEADER POTENTIAL//
LEADERS COURSE EVALUATIONS AND OCS EVALUATIONS//
LEADERS SCHOOL GRADUATES//
LEADERS WITH SOUND FILMS AND DISCUSSION GROUP TECHNIQUES//
LEADERS- THE ARMY AIT PLATOON//
LEADERS//
LEADERS//
LEADERS//
LEADERSHIP ABILITY//
LEADERSHIP AND GROUP ACHIEVEMENT//
LEADERSHIP AND SMALL-GROUP BEHAVIOR//
LEADERSHIP AS AFFECTED BY THE ATFA-1 ARMORED DIVISION//
LEADERSHIP AT HIGHER LEVELS OF COMMAND AS VIEWED BY SENIOR A
LEADERSHIP AT SMALL UNIT LEVEL//
LEADERSHIP CHARACTERISTICS OF THE OFFICER//
LEADERSHIP CLIMATE FOR TRAINEE LEADERS- THE ARMY AIT PLATOON
LEADERSHIP CONCEPTS//
LEADERSHIP INSTRUCTION FOR JUNIOR OFFICERS//
LEADERSHIP IN ARMY INFANTRY PLATOONS, JOB ANALYSIS//
LEADERSHIP IN ARMY INFANTRY PLATOONS- STUDY II, ACTIVITIES O
LEADERSHIP IN RIFLE SQUADS ON THE KOREAN FRONT LINE//
LEADERSHIP IN SMALL MILITARY UNITS- SOME RECENT RESEARCH FIV
LEADERSHIP ORIENTATION AND MOTIVATION STUDY AREA OF NCO II//
LEADERSHIP RULES//
LEADERSHIP SOCIOMETRIC DATA// AN ANALYSIS OF CERTAIN DET
LEADERSHIP TRAINING AREA//
LEADERSHIP TRAINING SYSTEM//
LEADERSHIP TRAINING AND FUNDAMENTAL LEADERSHIP SKILLS STUDY
LEADERSHIP TRAINING//
LEADERSHIP TRAINING//
LEADERSHIP, COMMAND, AND TEAM FUNCTION//
LEADERSHIP/ SELECTION// RESEARCH ON THE TRAINING OF N
LEADERSHIP//
LEADERSHIP//
LEADERSHIP//
LEADERSHIP//
LEADERSHIP//
LEADERSHIP//
LEADERSHIP//
LEADERSHIP//
LEARNING AND LOW ALTITUDE OBSERVATION//
LEARNING AND RETENTION AS A FUNCTION OF THE NUMBER OF COMPT
LEARNING AS A FUNCTION OF GROUPING SIMILAR STIMULI OR RESPON
LEARNING AS A FUNCTION OF GROUPING SIMILAR STIMULI OR RESPON
LEARNING A PERCEPTUAL MOTOR SKILL//
LEARNING FROM A TRAINING FILM//
LEARNING SEQUENCE RANDOM//
LEARNING THEORY AND RESEARCH PARADIGMS APPLIED TO TRAINING R
LEARNING TIME SCORES//
LEARNING TO LEAD/ LEADERSHIP TRAINING//
LEARNING/ INTERFERENCE/ MEANINGFULNESS/ INTERPOLATION// SHOR
LEARNING// A SELF-INSTRUCTIONAL PROGRAM FOR TONAL
LEARNING//
LENGTH AND MEAN INCLINATION//
LENSATIC COMPASS//
LESSON PLANS- GASOLINE ENGINE FUEL SYSTEM//
LITERAL ARTS PROGRAMMING- A PSYCHOLOGIST S VIEW//
LIFE HISTORY, FAMILY BACKGROUND, AND INTELLIGENCE DATA TO PF

219

Y AND EVALUATION OF AN IMPROVED ELECTRONICS TROUBLESHOOTING BASIC INSTRUCTION IN LAND NAVIGATION, PROFICIENCY TEST	MANUAL//	THE DEVELOPMENT	068/R/65/MAINT
IMPROVED	MANUAL//		091/R/58/PATRO
F TROUBLE SHOOTING PROFICIENCY THROUGH IMPROVED MAINTENANCE PREPARATION OF MAINTRAIN TROUBLESHOOTING TRAINING RESEARCH UTILIZING	MANUALS FOR MAN-MACHINE SYSTEMS THROUGH TASK ANALYSIS//	THE IMPROVEMENT O	167/F/61/05
IMPROVED MANUALS FOR	MANUALS//		068/R/61/MAINT
COORD - A DEVICE FOR THE EXPERIMENTAL STUDY OF	MAN COMPUTER INTERACTIONS- PROMISE AND REALITY//		167/F/63/08
AIR RECORDS OF FIELD RADIO REPAIRMEN ON FM TRANSMITTERS AND	MAN-MACHINE SYSTEMS THROUGH TASK ANALYSIS//		167/F/61/05
THE	MAN-PACKED FM SETS/ JOB ANALYSIS//	RFP	162/F/61/01
FOCUS ON	MAN-RIFLE WEAPON IN ATOMIC WAR//		106/R/56/REPAI
IMPROVING THE ABILITY OF THE INDIVIDUAL SOLDIER TO EMPLOY A	MAN//		162/F/59/03
N ACCURACY OF ANGLE ESTIMATION/ AERIAL NAVIGATION TRAINING/	MAP AND COMPASS IN LAND NAVIGATION//		091/R/57/PATRO
TARGET LOCATION//	MAP READING//	THE EFFECT OF TRAINING O	067/R/65/LOWENT
	MAP SCALE ON POSITION LOCATION/AERIAL NAVIGATION TRAINING/ I		067/R/65/LOWENT
	MAP SKILLS REQUIREMENTS//		072/R/57/MAPUS
TRAINING BASIC COMBAT SOLDIERS IN THE CRITICAL SKILLS OF	MAP USING//		072/R/55/MAPUS
THE	MAP-USING PROFICIENCY OF BASIC TRAINEES//		071/R/54/MAPRE
SOMMER IN BASIC TRAINING/ LOW APTITUDE/ REMEDIAL EDUCATION/	MARGINAL PERSONNEL//	A STUDY OF CATEGORY IV PER	026/R/66/CENTER
INNESS// THE RELATIONSHIP BETWEEN RIFLE STEADINESS AND RIFLE	MARKSMANSHIP AND THE EFFECT OF RIFLE TRAINING ON RIFLE STEAD		144/R/54/WHOLE
AND SITUATIONAL STRESS//	MARKSMANSHIP AS A FUNCTION OF MANIFEST ANXIETY AND ANXIETY A		093/R/54/PRESS
EXTENSION OF RESEARCH IN TRAINFIRE I BASIC RIFLE	MARKSMANSHIP COURSE//		130/R/58/TRAINP
TRAINFIRE V- EXTENSION OF RESEARCH ON TRAINFIRE I RIFLE	MARKSMANSHIP COURSE//		130/R/59/TRAINP
THE QUICK OR DEAD RIFLE COMBAT	MARKSMANSHIP TRAINING//		109/R/63/RIFLE
THE TRAINFIRE	MARKSMANSHIP TRAINING//		130/R/56/TRAINP
SHOOT FAST AND STRAIGHT/ RIFLE	MARKSMANSHIP TRAINING//		130/R/57/TRAINP
IMPROVED SILHOUETTE TARGETS FOR	MARKSMANSHIP TRAINING//		130/R/58/TRAINP
A COMPARISON OF WHOLE VERSUS PART METHODS OF	MARKSMANSHIP TRAINING//		144/R/54/WHOLE
THE EFFECT OF FLINCHING ON M1 RIFLE	MARKSMANSHIP//		051/R/55/FLINC
THE EFFECT OF PERSONALIZED STOCKS ON RIFLE	MARKSMANSHIP//		130/R/54/TRAINP
TRAINFIRE I- A NEW COURSE IN BASIC RIFLE	MARKSMANSHIP//		130/R/55/TRAINP
WHAT'S WRONG WITH THE SQUAD. RIFLE	MARKSMANSHIP//		130/R/61/TRAINP
THE PART METHOD IN THE ACQUISITION OF A MOTOR SKILL. RIFLE	MARKSMANSHIP//	COMPARISON BETWEEN THE WHOLE METHOD AND	144/R/56/WHOLE
THE PREDICTION OF RIFLE	MARKSMANSHIP//		162/F/67/06
WHY PRONE RIFLE	MARKSMANSHIP//		130/R/58/TRAINP
OPERATION TRAINFIRE- A NEW IDEA IN TROOP TRAINING//	MARKSMANSHIP//		162/F/60/02
HOW FAST CAN YOU HIT HIM/	MARKSMANSHIP//		095/R/59/PROTE
E- U.S. ARMY CHEMICAL CORPS//	MASKING UPON SMOKE GENERATOR AND FUEL SUPPLY TEAM PERFORMANC		095/R/59/PROTE
LS//	MASK UPON THE PERFORMANCE OF SELECTED INDIVIDUAL COMBAT SKIL		095/R/60/PROTE
LS//	MASK UPON THE PERFORMANCE OF SELECTED INDIVIDUAL COMBAT SKIL		167/F/60/03
	MASTER S. LEVEL PERSONNEL IN MILITARY TRAINING RESEARCH//		084/R/62/DHSEP
ILLS//	MATERIALS FOR AERIAL OBSERVER INSTRUCTION IN BASIC VISUAL SK		114/R/66/SAMOFF
UCTION//	MATERIALS FOR NIKE HERCULES JUNIOR OFFICERS/ PROGRAMED INSTR		059/R/60/JUNTR
	MATERIALS//		059/R/60/JUNTR
F U.S. ARMY AIR OFFENSE SCHOOL//	MATERIALS//		157/E/64/TAS
	MATHEMATICAL SKILLS REQUIREMENTS FOR BASIC ELECTRONICS IN TH		167/F/64/08
	MEAN LENGTH AND MEAN INCLINATION//		151/D/63/RR-6
ATION//	MEANING AS A FUNCTION OF SENSORY DEPRIVATION AND SOCIAL ISOL		159/F/65/02
ATED BIRLIOGRAPHY/ PAIRED-ASSOCIATE LEARNING/ INTERFERENCE/	MEANINGFULNESS/ INTERPOLATION// SHORT-TERM MEMORY- AN ANNOT		040/R/59/FIGHT
DEVELOPMENT OF A VERBAL	MEASURE FOR USE IN STRESS STUDY//		102/R/57/RADOP
DEVELOPMENT OF A	MEASURE OF SKILL AT RECEIVING INTERNATIONAL MORSE CODE//		022/R/61/BASIC
EFFECTS OF TRAINING RESPONSE MODE, TEST FORM, AND	MEASURE ON ACQUISITION OF SEMI-ORDERED FACTUAL MATERIALS//		151/D/62/RR-6
THE OCCURRENCE	MEASUREMENT AND EXPERIMENTAL MANIPULATION OF VISUAL HALLUCIN		109/R/62/RIFLE
INTEGRATIVE BEHAVIOR VS. INDIVIDUAL SKILL	MEASUREMENT AS PREDICTORS OF NAVIGATIONAL PERFORMANCE//		159/F/64/01
AN ANNOTATED BIBLIOGRAPHY ON PROFICIENCY	MEASUREMENT FOR TRAINING QUALITY CONTROL//		114/R/60/SAMOFF
ERS//	MEASUREMENT OF THE JOB PROFICIENCY OF NIKE AJAX PLATOON LEAD		063/R/59/LIFT
RDS//	MEASUREMENT RELIABILITY OF DIFFERENCES ON CHECK PILOT STAND		040/R/57/FIGHT
	MEASUREMENT, AND RELATIONSHIP TO COMBAT//		154/D/63/RR-10
FIELD STRESS- A PRELIMINARY STUDY OF ITS STRUCTURE,	MEASUREMENT//		071/R/55/MAPRE
NEED AGGRESSION	MEASUREMENT//		040/R/60/FIGHT
THE PROBLEM OF SIMPLE COMBINATION SCORES IN	MEASURES AND A PHYSIOLOGICAL MEASURE//	INT	040/R/56/FIGHT
ERCORRELATIONS OF TAYLOR MAS WITH CERTAIN OTHER PERSONALITY	MEASURES DERIVED BY FACTOR ANALYSIS//		040/R/59/FIGHT
I-VARIANCE OF MOTIVATIONAL	MEASURES IN MILITARY FIELD STUDIES- EXPERIMENTATION AND DISC		155/D/65/RR-11
MISSION//	MEASURES OF ABILITY AND PROGRAMED INSTRUCTION PERFORMANCE// I		162/F/61/03
VALIDITY OF TWO TYPES OF STRESS-SENSITIVE	MEASURES OF MOTIVATION//		145/R/55/YUCCA
INDIVIDUAL DIFFERENCES/ TIME TO STUDY/ PROGRAM ERRORS//	MEASURES OF PALMAR SWEAT UNDER FIELD CONDITIONS//		040/R/62/FIGHT
AN INVESTIGATION OF THREE	MEASURES OF PSYCHOLOGICAL STRESS//		154/D/64/RR-10
VALIDITY AND RELIABILITY OF CERTAIN	MEASURES//		091/R/59/PATRO
FOUR MOTIVE	MEASURING DEVICE//		088/R/61/OFFTR
POSSIBLE COMBAT APPLICATION OF EXPERIMENTAL STEALTH	MEASURING LEADERSHIP CHARACTERISTICS OF THE OFFICER//		040/R/59/FIGHT
IDENTIFYING AND	MEASURING MECHANICAL ABILITY//		056/R/66/INGN
A TEST - RETEST STUDY OF TWO TESTS	MEASURING SUCCESS OF INSTRUCTION//		040/R/59/FIGHT
INSTRUCTIONAL OBJECTIVES, AND	MECHANICAL ABILITY//		159/F/57/01
A TEST - RETEST STUDY OF TWO TESTS MEASURING	MECHANICAL MAINTENANCE TRAINING//		099/R/55/RADAR
ANNOTATED BIRLIOGRAPHY OF RESEARCH STUDIES IN AVIATION	MECHANIC AND OBSERVATIONS ON TROUBLE SHOOTING BEHAVIOR//		099/R/57/RADAR
A PERFORMANCE TEST FOR THE AAFCS M-33 RADAR	MECHANIC PROFICIENCY TEST- PART II - DEVELOPMENT AND CROSS-V		099/R/57/RADAR
ALTDATION//	MECHANIC PROFICIENCY TEST- PART I - COMPARISON OF MECHANICS		099/R/54/RADAR
WITH AND WITHOUT FIELD EXPERIENCE//	MECHANICS- ANALYSIS OF FIELD ACTIVITIES AND PROBLEMS WITH IMP		077/R/64/MORIL
LICATIONS FOR TRAINING//	MECHANICS AND MAINTENANCE SERGANTS//		099/R/57/RADAR
PERFORMANCE OF ORGANIZATIONAL MAINTENANCE BY TRACK VEHICLE	MECHANICS WITH AND WITHOUT FIELD EXPERIENCE//	THE A	077/R/61/MORIL
AFCS M-33 MECHANIC PROFICIENCY TEST- PART I - COMPARISON OF	MECHANICS//		099/R/55/RADAR
THE DEVELOPMENT OF PERFORMANCE CRITERIA FOR TURRET	MECHANICS//	A THREE-HOUR P	167/F/59/05
PERFORMANCE TEST TO EVALUATE JOB EFFECTIVENESS OF ARMY RADAR	MECHANICS//		162/F/65/03
	MEDIA IN EDUCATION AND TRAINING//		074/R/53/MEDIC
THE ROLE OF	MEDIATION IN REVERSE ASSOCIATION- THE ROLE OF TEMPORAL FACT		074/R/53/MEDIC
VERBAL	MEDICAL OFFICERS IN VARIOUS TYPES OF INSTALLATIONS WITHIN TH		159/F/65/02
E VARIOUS THEATRES//	MEDICAL OFFICERS' OPINIONS ON PROFESSIONAL AND PERSONAL PROBL		040/R/57/FIGHT
EMS OF ARMY SERVICE//	MEDICAL OFFICERS' OPINIONS ON PROFESSIONAL AND PERSONAL PROBL		167/F/66/01
G/ INTERFERENCE/ MEANINGFULNESS/ INTERPOLATION// SHORT-TERM	MEMORY- AN ANNOTATED BIRLIOGRAPHY/ PAIRED-ASSOCIATE LEARNIN		167/F/61/02
REACTIONS OF	MEN UNDER STRESS TO A PICTURE PROJECTIVE TEST//		162/F/62/04
ANCE/ PUBLICATIONS/ TECHNICAL WRITERS//	MEN, MACHINES AND THE SOFTWARE MIDDLEMAN/ ELECTRONIC MAINTEN		125/R/60/TEXTP
	MENTAL DEFICIENTS ON A SIMPLE VIGILANCE TASK//		127/R/56/TICK
PERFORMANCE OF	MENTAL DEFICIENTS ON A SIMPLE VIGILANCE TASK//		162/F/62/02
PERFORMANCE OF	METER READING TRAINER//		167/F/59/07
AN EVALUATION OF AN EXPERIMENTAL	METHODOLOGICAL CONSIDERATIONS- STUDY OF MOTIVATIONS OF SOLDI		153/D/66/RR-7
ERS FROM THE CHINESE COMMUNIST FORCES IN KOREA//	METHODOLOGICAL DECISION//		088/R/57/OFFTR
THE SYSTEMS CONCEPT AS A PRINCIPLE OF	METHODOLOGY AND TRAINING RESEARCH- THEIR APPLICATION IN THE		106/R/60/REPAIR
DEVELOPMENT OF TRAINING PROGRAMS//	METHODOLOGY FOR PROSE-LEARNING RESEARCH//		065/R/60/LIMIT
	METHOD FOR STUDYING LEADERSHIP//		059/R/60/JUNTR
THE FUNCTIONAL CONTEXT	METHOD OF INSTRUCTION//	BASIC ELECTRONICS F	065/R/55/LIMIT
OR MINIMALLY QUALIFIED MEN- AN EXPERIMENTAL EVALUATION OF A	METHOD OF PRESENTATION//		111/R/56/RIM
HOW TO DESIGN TRAINING	METHODS AND MATERIALS//		084/R/54/DCS
THE EFFECTIVENESS OF DIFFERENT TRAINING	METHODS IN SCHOOL SITUATIONS//		072/R/57/MAPUS
RESEARCH ON	METHODS OF INTERVIEWING FOREIGN INFORMATION/ INTERROGATION/		072/R/57/MAPUS
THE EFFECT OF DIFFERENT	METHODS OF MOTIVATING MEN TO APPLY FOR DCS//		125/R/61/TEXTP
SEVERAL	METHODS OF TEACHING CONTOUR INTERPRETATION//		167/F/65/03
AN INVESTIGATION OF SEVERAL	METHODS OF TEACHING CONTOUR INTERPRETATION//		
THE PURPOSE OF PLANNING A RESEARCH PROGRAM ON INSTRUCTIONAL	METHODS//	EXPLORATORY INVESTIGATIONS CONDUCTED FOR	
	METHODS//	MILITARY APPLICATIONS OF PROGRAMED INSTRUCTION//	

ADVISOR AND COUNTERPART ACTIVITIES IN THE	MILITARY ASSISTANCE PROGRAM IN THE REPUBLIC OF CHINA//	147/R/65/F1-2
A	MILITARY CAREER//	162/R/64/07
BASIC	MILITARY CONTROL - A FREQUENTLY MISSED TRAINING OPPORTUNITY//	125/R/61/T1XTR
BASIC	MILITARY INFORMATION AND COMBAT EFFECTIVENESS//	022/R/55/HASIC
FACTORS AFFECTING THE LEVEL OF BASIC	MILITARY KNOWLEDGE IN THE ARMY RESERVE//	061/R/56/RN02H
RESEARCH IN	MILITARY KNOWLEDGE IN THE ACTIVE DUTY ARMY//	061/R/57/RN0WH
A REVIEW OF RECENT RESEARCH AND DEVELOPMENT ON	MILITARY KNOWLEDGE OF ACTIVE ARMY ENLISTED PERSONNEL//	061/R/55/RN0WH
A SURVEY OF HUMAN FACTORS IN	MILITARY LEADERSHIP//	167/R/60/04
SELECTED CURRENT RESEARCH IN	MILITARY LEADERSHIP, COMMAND, AND TEAM FUNCTION//	167/R/64/07
METHODOLOGY OF ESTABLISHING	MILITARY NIGHT OPERATIONS (WITH SPECIAL APPLICATION TO ARMOR)	018/R/57/ARMORN
A PILOT STUDY OF THE RETENTION OF BASIC	MILITARY PSYCHOLOGY//	167/R/61/08
LEADERSHIP IN SMALL	MILITARY RESEARCH REQUIREMENTS//	067/R/58/05
RELATIONS IN CHINESE RESPONSES TO COMMUNIST	MILITARY SUBJECT MATTER AFTER SEPARATION FROM THE SERVICE//	061/R/55/RN0WH
SMALL GROUP RESEARCH IN THE	MILITARY UNITS- SOME RECENT RESEARCH FINDINGS//	022/R/61/08/10
\$600 TANK EMBATTL//	MILITARY-POLITICAL CONTROL//	108/R/56/T10K
THE	MILITARY//	167/R/56/01
MOD OF PRESENTATION//	MINIATURE ARMOR BATTLEFIELD//	136/R/63/UNIT
BASIC ELECTRONICS FOR	MINIATURE ARMOR BATTLEFIELD//	136/R/60/UNIT
RESEARCH ON	MINIMALLY QUALIFIED MEN- AN EXPERIMENTAL EVALUATION OF A MET	065/R/60/LMI
RESEARCH ON AIR DEFENSE	MISSILE MAINTENANCE TECHNICIANS//	068/R/60/MAINT
INING METHODS FOR SIMULATORS OF REMOTE CONTROL HUMAN-GUIDED	MISSILE OFFICERS//	114/R/60/SAMOFF
A DESCRIPTION OF WORK FLOW IN SUPPORT OF A MAWK	MISSILE SYSTEMS//	049/R/62/ETREP
PROFICIENCY//	MISSILE SYSTEMS//	079/R/64/MOSAT
A SURVEY OF ORGANIZATIONAL MAINTENANCE OF THE NIKE AJAX	MISSILE UNIT EVALUATIONS/ OPERATIONAL READINESS TESTS/ UNIT	136/R/66/VIGIL
THE EFFECT OF	MISSILE//	068/R/60/MAINT
FORECAST	MUCK TOWER HEIGHT IN AIRBORNE TRAINING//	055/R/56/HILO
TRAINING/ CONFIDENCE AND DESPAIR ATTITUDES// A CONCEPTUAL	MOCKUP SYSTEM TECHNICAL DESCRIPTION//	051/R/61/FOREC
NOTORIES/ JOB ANALYSIS/ TRAINING CONTENT DERIVATION// A	MODEL OF BEHAVIOR UNDER STRESS, WITH IMPLICATIONS FOR COMBAT	040/R/66/EIGHT
N/ VIGILANCE//	MODEL OF JUNIOR OFFICER JOBS FOR USE IN DEVELOPING TASK INVE	114/R/65/SAMOFF
	MODES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION	162/R/64/04
	MONEY INCENTIVES AND VIGILANCE//	136/R/64/VIGIL
	MONITORING//	136/R/62/VIGIL
	MONITORING//	162/R/61/07
	MONITORING//	162/R/61/11
	MONITORS//	162/R/62/04
	MONOTONOUS WORK//	162/R/64/01
	MONOTONY//	102/R/54/RADDP
	MOONLIGHT AND NIGHT VISIBILITY//	123/R/64/SWING
	MORALE AND LEADERSHIP AS AFFECTED BY THE ATFA-1 ARMORED DIVI	154/R/55/03
	MORALE IN GUIDED MISSILE PATTERIES//	066/R/60/LOCKR
	MORSE CODE/ MOTIVATION//	102/R/60/RADDP
	MORSE CODE//	102/R/57/WADDP
	MOS 111.0, GRADUATES OF ADVANCED INDIVIDUAL TRAINING COURSE,	108/R/62/RIFEL
	MOS 111.0//	109/R/61/RIFEL
	MOS 111.0//	109/R/58/RIFEL
	MOTIVATING MEN TO APPLY FOR DCS//	066/R/56/DCS
	MOTIVATION AND ATTENTION PROBLEMS OF THE ARMY OFFICER CANDID	068/R/54/DCS
	MOTIVATION AT AN ARMY TECHNICAL TRAINING SCHOOL//	145/R/55/WTGWE
	MOTIVATION STUDY AREA OF MCD 11//	080/R/63/MCD
	MOTIVATION TO COMPLETE DCS WITH INTEREST INVENTORIES//	066/R/55/DCS
	MOTIVATION/ MONOTONY//	102/R/58/RADDP
	MOTIVATION//	102/R/61/RADDP
	MOTIVATION//	103/R/56/MAINT
	MOTIVATION//	114/R/64/SAMOFF
	MOTIVATION//	162/R/61/04
	MOTIVATIONAL MEASURES DERIVED BY FACTOR ANALYSIS//	040/R/56/ETREP
	MOTIVATIONS OF CHINESE COMMUNIST SOLDIERS- A BASIS FOR RESEA	127/R/56/T10K
	MOTIVATIONS OF SOLDIERS FROM THE CHINESE COMMUNIST FORCES IN	107/R/56/T10K
	MOTIVE MEASURES//	154/R/66/HK-10
	MOTOR SKILL, RIFLE MARKSMANSHIP//	144/R/56/WHOLE
	MOTOR SKILL//	144/R/55/WHOLE
	MU SELL M- INDEX RED ILLUMINATION//	018/R/61/ARMORN
	MUSIC IN MILITARY WARFARE III//	132/R/54/TREH
	MUSIC RECORDINGS FOR PROPAGANDA BROADCASTS TO SELECTED COMMU	132/R/54/TREH
	NAP-OF-THE-EARTH FLIGHT//	054/R/64/HELI-1
	NATIONAL WAR COLLEGE//	093/R/54/PUEIC
	NATO CREW//	167/R/60/05
	NAVIGATION DISPLAYS AND LOW-ALTITUDE NAVIGATION//	067/R/64/LOWEL
	NAVIGATION PROCESS//	109/R/64/RIFEL
	NAVIGATION SKILLS//	072/R/56/MAPIUS
	NAVIGATION TRAINING//	067/R/61/LOWEL
	NAVIGATION TRAINING/ MAP HEADING//	067/R/65/LOWEL
	NAVIGATION TRAINING/ TARGET LOCATION//	067/R/65/LOWEL
	NAVIGATION- A PROTO-TYPE COURSE//	109/R/63/RIFEL
	NAVIGATION- BASIC INSTRUCTION//	091/R/59/PATRI
	NAVIGATION- DEVELOPMENT AND EVALUATION OF A PROGRAM OF INSTR	109/R/64/RIFEL
	NAVIGATION- SYSTEM CONSIDERATIONS AND PROCEDURAL SOLUTIONS//	067/R/64/LOWEL
	NAVIGATION, PROFICIENCY TEST MANUAL//	091/R/59/PATRI
	NAVIGATION//	067/R/64/LOWEL
	NAVIGATION//	072/R/56/MAPIUS
	NAVIGATION//	072/R/57/MAPIUS
	NAVIGATION//	091/R/57/PATRI
	NAVIGATION//	091/R/61/PATRI
	NAVIGATIONAL PERFORMANCE//	109/R/62/RIFEL
	NAVY LORAN EQUIPMENT//	157/R/65/TAS
	NCO LEADERS SCHOOL GRADUATES//	067/R/53/DCO
	NCOs/ ACT/ ATTITUDES//	026/R/66/CENTER
	NEED ACHIEVEMENT AND TEST ANXIETY//	154/R/63/RR-10
	NEED AGGRESSION MEASUREMENT//	154/R/63/RR-10
	NEEDS AND TRANSLATING THEM INTO RESEARCH REQUIREMENTS//	162/R/62/03
	NEEDS, AND PROJECTED TRAINING REQUIREMENTS FOR OPERATORS AND	122/R/66/STINTR
	NEW RETICLE DESIGN FOR GUNLAYING AGAINST FLASHES//	018/R/64/ARMORN
	NICORD, BRIEFING BOOKLET//	083/R/57/ARMORN
	NIGHT GUNFIRE//	018/R/55/ARMORN
	NIGHT OPERATIONS TRAINING- CONCEPTUALIZATION AND PROPOSED CO	123/R/60/SWING
	NIGHT OPERATIONS (WITH SPECIAL APPLICATION TO ARMOR)//	018/R/57/ARMORN
	NIGHT RIFLE FIRING UNDER ILLUMINATION RANG	

AND REQUIREMENTS// A STUDY OF HUMAN FACTORS IN THE OPERATION OF THE NIKE AJAX SYSTEM, PART I- TRAINING PROBLEMS 029/B/58/CLASS
DICES// A STUDY OF HUMAN FACTORS IN THE OPERATION OF THE NIKE AJAX SYSTEM, PART III- TECHNICAL APPEN 029/B/58/CLASS
CORPS// COLD WEATHER OPERATION TRAINING OF INFANTRY FORCES IN THE STRATEGIC ARMY 029/B/64/COLDS
SURVEY OF SURVEY OF OPERATIONAL FLYING ACTIVITIES OF FIXED WING AVIATORS// 063/B/62/LIFT
SOURCES OF VARIABILITY IN MISSILE UNIT EVALUATIONS/ OPERATIONAL FLYING ACTIVITIES OF ROTARY WING AVIATORS// 063/B/62/LIFT
STRUCTURES, TRAINING PROCEDURES, AND INTERFACES BETWEEN OPERATIONAL READINESS TESTS/ UNIT PROFICIENCY// 138/B/66/VIGIL
A SURVEY OF HUMAN FACTORS IN MILITARY NIGHT OPERATIONS OF SMALL WORK GROUPS// 134/B/65/UNIFE
HUMAN FACTORS IN CBR OPERATIONS RESEARCH AND HUMAN FACTORS RESEARCH// 167/F/64/04
SUMMARY OF LITERATURE REVIEW OF EXTENDED OPERATIONS WITH SPECIAL APPLICATION TO ARMOR// 018/B/57/ARMORN
AR SIGNALS// OPERATIONS// 095/B/61/PROTE
AN ATTEMPT TO DEVELOP A RADAR OPERATIONS// 148/C/64/ES-24
LICATIONS FOR TRAINING/ TASK ANALYSIS// THE AAFCS M-33 OPERATOR PROFICIENCY IN INTERPRETING GROUND SURVEILLANCE RAD 018/B/64/ARMORN
THE AAFCS M-33 OPERATOR SCREENING TEST- A REPORT OF SIMULATOR INSTABILITY// 138/B/62/VIGIL
SELECTION AND TRAINING OF STEREOSCOPIC RANGE FINDER OPERATOR- ANALYSIS OF FIELD ACTIVITIES AND PROBLEMS WITH IMP 099/B/55/RADAR
TED MANPOWER NEEDS, AND PROJECTED TRAINING REQUIREMENTS FOR OPERATOR- A MANUAL OF OPERATING PROCEDURES// 099/B/56/RADAR
A STUDY OF TRAINING OF STEREOSCOPIC RANGE FINDER OPERATORS FINDER OPERATORS(U)// 121/B/57/STALK
Y OF TRAINING OF STEREOSCOPIC RANGE FINDER OPERATORS FINDER OPERATORS AND USERS OF FUTURE STINED SYSTEMS// PROJEC 122/B/66/STINTR
RESEARCH ON OPERATORS FINDER OPERATORS FOR ARMOR// 104/B/57/RANGE
ON-SITE TRAINING OF GUIDED MISSILE OPERATORS FOR ARMOR// A STUD 104/B/57/RANGE
UATION OF ON-SITE TRAINING FOR NIKE INTEGRATED FIRE CONTROL OPERATORS OF AIR DEFENSE SYSTEMS// 138/B/60/VIGIL
ON-SITE TRAINING OF GUIDED MISSILE OPERATORS- EVALUATION MATERIALS// 066/B/60/LOCKO
MOD FOR RATING THE PERFORMANCE OF STEREOSCOPIC RANGE FINDER OPERATORS// THE DEVELOPMENT AND EVAL 066/B/58/LOCKO
USE OF PROFICIENCY TESTS FOR NIKE SYSTEM LAUNCHING PLATOON OPERATORS// A SIMPLIFIED MFT 104/B/56/RANGE
UNCERTAINTY ABOUT ORIGINAL ENLISTMENT ON REPORTED CHANGE IN DEVELOPMENT AND 138/B/61/VIGIL
BASIC COURSE// A SURVEY OF OPINION TOWARD THE ARMY// EFFECTS OF 025/B/61/CARFE
CE// SURVEY OF OPINIONS ABOUT THE UNIT ROTATION PLAN (OPERATION GYROSCOPE) 135/B/55/UNIRO
MEDICAL OFFICERS// OPINIONS OF GRADUATES OF THE SURFACE-TO-AIR MISSILE OFFICER 114/B/58/SAMOFF
A SURVEY OF OPINIONS ON PROFESSIONAL AND PERSONAL PROBLEMS OF ARMY SERVI 074/B/53/MEDIC
TEST RELIABILITY OF THE EXPERIMENTAL MODEL OF THE AMERICAN OPINIONS REGARDING OPERATION GYROSCOPE IN THE FIRST DIVISION 135/B/55/UNIRO
PROBLEMS IN PROGRAMING AND INTENSIVE OPTICAL COMPANY ARMED FORCES VISION TESTER// TEST-R 018/B/54/ARMORN
PROGRAMING AN INTENSIVE ORAL-AURAL LANGUAGE COURSE// 031/B/61/CONTA
A FEASIBILITY STUDY OF A SPECIAL, MACHINE-TAUGHT ORAL-AURAL LANGUAGE COURSE// 031/B/62/CONTA
ASIBILITY OF DEVELOPING A TASK CLASSIFICATION STRUCTURE FOR ORAL-AURAL RUSSIAN LANGUAGE COURSE// 031/B/60/CONTA
TROUBLES REPORTED BY ELECTRONICS REPAIR PERSONNEL IN NIKE ORDERING TRAINING PRINCIPLES AND TRAINING CONTENT// FF 153/D/63/BR-R
OF THE FORECAST CONCEPT OF ELECTRONIC SYSTEM REPAIR AT THE ORDNANCE DETACHMENTS// IMPLEMENTATION 083/B/57/NICOR
PRESENTATIONS TO THIRD MEETING OF NIKE ZEUS TRAINING PANEL, ORDNANCE GUIDED MISSILE SCHOOL// HUMRO 051/B/63/FOREC
WITH IMPLICATIONS FOR TRAINING, PART I -- M-33// ORDNANCE GUIDED MISSILE SCHOOL// 159/F/59/01
VITIES WITH IMPLICATIONS FOR TRAINING, PART II -- T-3R// ORDNANCE IFC ELECTRONICS MAINTENANCE- ANALYSIS OF ACTIVITIES 039/B/56/FCION
DEVELOPMENT AND EVALUATION OF AN EXPERIMENTAL ORDNANCE IFC ELECTRONICS MAINTENANCE- ANALYSIS OF FIELD ACTI 039/B/57/FCION
A SURVEY OF ORDNANCE RADAR REPAIR COURSE// 083/B/64/NICOR
KOJF-DO COMPLICATIONS- ANALYSIS OF SOCIAL AND POLITICAL ORGANIZATION MAINTENANCE OF THE MEDIUM TANK// 077/B/58/MORIL
TATUS OF SOURCE AS DETERMINANTS OF SPREAD OF INFORMATION IN ORGANIZATION OF KOREAN POWS IN UNC POW CAMPS, 1950-51// 127/B/55/TICK
A SURVEY OF ORGANIZATIONAL GROUPS// GROUP PARTICIPATION AND INFORMAL S 035/B/55/DESE-V
INTENANCE SERGEANTS// THE PERFORMANCE OF ORGANIZATIONAL MAINTENANCE OF THE NIKE AJAX MISSILE// 068/B/60/MAINT
PROBLEMS AND POSSIBILITIES IN THE USE OF DISCUSSION FOR ORGANTZATIONAL MAINTENANCE BY TRACK VEHICLE MECHANICS AND MA 077/B/64/MORIL
REPORT OF THE LEADERSHIP ORGANIZATIONAL PROBLEM SOLVING// 033/B/55/DECTS
EFFECT OF FOUR ORIENTATION AND MOTIVATION STUDY AREA OF NCO I// 080/B/63/NOEN
TASK THE TEST OF AN ORIENTATION PROCEDURES ON AIRBORNE TRAINEES// 090/B/53/ORIEN
MUNIST MILITARY-POLITICAL CONTROL// ROLE OF TRADITIONAL ORIENTATION TO STUDIES IN GROUP PRODUCTIVITY// 011/B/55/AAA
INING EFFECTIVENESS OF A STEREOSCOPIC RANGE-FINDER TRAINER// ORIENTATION WORKSHOP IN AUTOMATED INSTRUCTION// 125/B/62/TEXTR
T POPULATIONS// OVERSEAS DUTY ON THE ATTITUDES OF AMERICAN TROOPS TOWARD MOS THE TRA 127/B/58/TICK
NEW PERSPECTIVES IN TRAINING AND ASSESSMENT OF OVERSEAS PERSONNEL// 013/B/54/ACROS
OF CROSS-CULTURAL PROBLEMS ENCOUNTERED BY AMERICANS WORKING OVERSEAS- AN INSTRUCTORS HANDBOOK// EXAMPLES 016/B/66/AREA
AMERICAN ADVISORS OVERSEAS// 016/B/65/AREA
VIGILANCE PERFORMANCE AS A FUNCTION OF PAIRED MONITORING// 138/B/62/VIGIL
STIMULI OR RESPONSES// VERBAL PAIRED-ASSOCIATE LEARNING AS A FUNCTION OF GROUPING SIMILAR 075/B/63/METHO
STIMULI OR RESPONSES// SUPPLEMENTARY REPORT- VERRA PAIRED-ASSOCIATE LEARNING AS A FUNCTION OF GROUPING SIMILAR 075/B/64/METHO
ERPOLATION// SHORT-TERM MEMORY- AN ANNOTATED BIBLIOGRAPHY// PAIRED-ASSOCIATE LEARNING/ INTERFERENCE/ MEANINGFULNESS/ INT 159/F/65/02
S ON VIGILANCE PERFORMANCE// THE EFFECTS OF PAIRED-ASSOCIATE LEARNING/ INTERFERENCE/ MEANINGFULNESS/ INT 138/B/62/VIGIL
AN INVESTIGATION OF TWO MEASURES OF FALMAR SWEAT UNDER FIELD CONDITIONS// 145/B/55/YUCCA
SIMPLIFICATION OF THE PANEL LAYOUT ON STANDARD SERIES TANK RADIOS// 017/B/57/ARMORC
ATION AND SOCIAL ISOLATION// COLLECTED PAPERS RELATED TO THE STUDY OF THE EFFECTS OF SENSORY DEPRIV 151/D/62/BR-6
ARISON BETWEEN THE PEACE TIME PSYCHIATRIC CASUALTY RATES OF PARACHUTISTS AND NON-PARACHUTISTS// A COMP 162/F/55/03
LEARNING THEORY AND RESEARCH PARADIGMS APPLIED TO TRAINING RESEARCH- SOME DISSONANCES// 167/F/64/06
THE DESIGN FOR A PARAMETRIC STUDY OF A LEADERSHIP TRAINING SYSTEM// 080/B/61/NCO
INFLUENCE OF A PARTNER ON TOLERANCE FOR A SELF-ADMINISTERED ELECTRIC SHOCK/ 040/B/57/FIGHT
WHOLE AND PART METHODS IN LEARNING A PERCEPTUAL MOTOR SKILL// 144/B/55/WHOLE
PART METHODS OF MARKSMANSHIP TRAINING// 144/B/54/WHOLE
A COMPARISON OF WHOLE VERSUS PART METHOD IN THE ACQUISITION OF A MOTOR SKILL, RIFLE MARKS 144/B/54/WHOLE
MANSHIP// COMPARISON BETWEEN THE WHOLE METHOD AND THE PART METHOD IN THE ACQUISITION OF A MOTOR SKILL, RIFLE MARKS 144/B/54/WHOLE
ICES// THE USE OF PART-TASK TRAINERS AND OPERATIONAL EQUIPMENT AS TRAINING DEV 177/F/59/06
AINING// DEVELOPMENT OF IMPROVED RIFLE SQUAD TACTICAL AND PATROLLING-PROGRAMS FOR THE LIGHT WEAPONS INFANTRYMAN/ AIT TR 109/B/65/RIFLEM
SPRING 1956 RESEARCH ON RECONNAISSANCE PATROLLING- A BASIC COURSE IN INDIVIDUAL SKILLS// 091/B/57/PATRO
FALL 1956 RESEARCH ON RECONNAISSANCE PATROLLING- A BASIC COURSE IN INDIVIDUAL SKILLS// 091/B/57/PATRO
INSTRUCTOR'S GUIDE, ACTIVITY PATROL I, LAND NAVIGATION- BASIC INSTRUCTION// 091/B/59/PATRO
N// ATTITUDE AND INFORMATION PATTERNS OF DCS FLIGHTS// 151/D/62/BR-6
L CHANGE// PEASANT FATALISM AND SOCIOECONOMIC INNOVATION/ CROSS-CULTURA 086/B/53/DCS
RING COLD-WEATHER EXER... CHARACTERISTICS DISTINGUISHING PEER-PREFERRED FROM NON-PREFERRED AND REJECTED TENT-MATES DU 028/B/65/CIVIC
T AND INCORRECT KNOWLEDGE OF RESULTS// AUDITORY PERCEPTION OF NUMEROSITY AS AFFECTED BY NUMBER AND BY CORREC 040/B/59/FIGHT
FN LATERAL PHORIA AND SOME TESTS OF REAL AND APPARENT DEPTH PERCEPTION// 151/D/62/BR-6
WHOLE AND PART METHODS IN LEARNING A PERCEPTION// THE RELATIONSHIP BETWE 086/B/54/DCS
JOB AID/ HANDBOOKS/ TRAINING REQUIREMENTS// PERCEPTUAL MOTOR SKILL// 104/B/53/RANGE
TACTICAL TRAINING FOR TANK COMMANDERS- TEST DEVELOPMENT AND PERFORMANCE AIDS FOR JUNIOR OFFICERS/ SAM BATTERY OFFICERS/ 144/B/55/WHOLE
INFERRED CORRELATION BETWEEN COMBAT PERFORMANCE AND SOME FIELD LABORATORY STRESSES// 114/B/65/SAMOFF
VIGILANCE PERFORMANCE AS A FUNCTION OF PAIRED MONITORING// IMPROVING 040/B/58/FIGHT
VIGILANCE PERFORMANCE AS A FUNCTION OF INTERPOLATED REST// 124/B/63/TANKE
VIGILANCE PERFORMANCE AS A FUNCTION OF TASK AND ENVIRONMENTAL VARIABLE 138/B/62/VIGIL
THE DEVELOPMENT OF PERFORMANCE CRITERIA FOR THREFT MECHANICS// 138/B/62/VIGIL
THE CORRELATION BETWEEN BARKON-WELSH FIGURE PREFERENCES AND PERFORMANCE IN COMBAT// EFFECT OF INTELLIGENCE AND RACE ON 077/B/61/MORIL
A SURVEY OF HUMAN FACTORS IN MILITARY PERFORMANCE IN EXTREME COLD WEATHER// 040/B/57/FIGHT
VERBAL COORDINATION AND PERFORMANCE IN SMALL MILITARY TEAMS// 029/B/60/COLDS
F LIFE HISTORY, FAMILY BACKGROUND, AND INTELLIGENCE DATA TO PERFORMANCE IN STRESSFUL SITUATIONS// 134/B/64/UNIFF
F-EARTH FLIGHT// PERFORMANCE IN THE LIGHT WEAPONS HELICOPTER DURING MAP-OF-TM 040/B/56/FIGHT
HOW TO ANALYZE PERFORMANCE OBJECTIVES TO DETERMINE TRAINING CONTENT// 059/B/60/JORTA
SOME IMPORTANT WAYS IN WHICH PERFORMANCE OBJECTIVES CAN VARY// 056/B/66/INCO
THE EFFECTS OF REWARD AND KNOWLEDGE OF RESULTS ON THE PERFORMANCE OF A SIMPLE VIGILANCE TASK// 162/F/62/10
EFFECT OF INCREASING SIGNAL LOAD ON DETECTION PERFORMANCE OF A VIGILANCE TASK// 162/F/64/02
THE EFFECTS OF PRACTICE ON THE PERFORMANCE OF BASIC ARMOR SKILLS AT NIGHT// 018/B/61/ARMORN
RECORDING AND EVALUATING THE PERFORMANCE OF INDIVIDUALS AS MEMBERS OF SMALL GROUPS// 167/F/53/01
THE EFFECTS OF CBR PROTECTION UPON THE PERFORMANCE OF MENTAL DEFICIENTS ON A SIMPLE VIGILANCE TASK// 167/F/61/02
PERFORMANCE OF MENTAL DEFICIENTS ON A SIMPLE VIGILANCE TASK// 162/F/62/04
PERFORMANCE OF SELECTED COMBAT SKILLS IN HOT WEATHER// 095/B/61/PROTE

ICE TECHNIQUE//
TS ON DETECTION/ VIGILANCE//
LY QUALIFIED MEN- AN EXPERIMENTAL EVALUATION OF A METHOD OF
ANCE UNDER CONDITIONS OF SINGLE VERSUS MULTIPLE-TYPE SIGNAL
ORDNANCE GUIDED MISSILE SCHOOL//
OPING A TASK CLASSIFICATION STRUCTURE FOR ORDERING TRAINING
DESIGN AND EVALUATION OF
IS// THE POLITICAL BEHAVIOR OF KOREAN AND CHINESE
AN ANALYSIS OF
EFFECTS OF VERBALIZATION AND INFORMATION ON
FECTS OF WRITTEN VERBALIZATION AND TIMING OF INFORMATION ON
CTION CONTENT AND TEAM EFFECTIVENESS-- STUDY OF SMALL GROUP
D POSSIBILITIES IN THE USE OF DISCUSSION FOR ORGANIZATIONAL
COMMITTEE
IN THE OPERATION OF THE NIKE AJAX SYSTEM, PART I- TRAINING
UCTORS HANDBOOK//
AN APPRAISAL OF SOME NIGHT TRAINING
A SURVEY OF TRAINING
ON SYSTEMS//
CE TRAINING//
S//
MEDICAL OFFICERS OPINIONS ON PROFESSIONAL AND PERSONAL
NS FOR AREA TRAINING//
ICAL SUPPLEMENT TO THE REPORT ON A SURVEY OF ARMOR TRAINING
AERIAL OBSERVER
THE ADVENT OF THE KYLCYSTICS/ TEAM APPROACH TO TRAINING
AN IBM APPLICATION TO SCALING
THE FORMULATION OF TRAINING
T METHODS OF TASK AND SKILL ANALYSIS//
ERS//
ER JORS/ SELECTION OF TRAINING TASKS//
NAL METHOD//
SYSTEM, PART II- THE SHOOTING TEAM --RECOMMENDED OPERATING
THE AAFCS M-33 OPERATOR- A MANUAL OF OPERATING
HUMAN
SOCIOMETRIC CHOICE AND GROUP
MULTIPLE CRITERIA IN
TASK ORIENTATION TO STUDIES IN GROUP
MEDICAL OFFICERS OPINIONS ON
RRIS JANOWITZ - REVIEW//
DEPENDENCY ON SUPERVISORS,
INFORMATION// RELATIONSHIP BETWEEN ELECTRONIC MAINTENANCE
TARGET PLACEMENT ON A DETECTION
IMPROVING FLIGHT
OPERATOR
S//
THE EFFECTS OF INCREASING AND DECREASING TRAINING TIME ON
THE EFFECTS OF INCREASING AND DECREASING TRAINING TIME ON
GHT WEAPONS INFANTRYMAN, MOS 111.0//
PILOT STANDARDS//
COMBAT SUBJECTS AND
THE EFFECTS ON FLIGHT
AN ANNOTATED BIBLIOGRAPHY ON
THE MAP-USING
MEASUREMENT OF THE JOB
AND TRAINING IMPLICATIONS RELATED TO IMPROVING THE TACTICAL
AN EVALUATION OF THE ON-THE-JOB
AN EVALUATION OF THE ON-THE-JOB
A TEST OF A METHOD OF CONVERTING
THE EFFECT ON TRAINING AND EVALUATION OF REVIEW FOR
NG//
S//
DEVELOPMENT OF
DEVELOPMENT AND USE OF
BASIC INSTRUCTION IN LAND NAVIGATION,
THE AAFCS M-33 MECHANIC,
THE AAFCS M-33 MECHANIC
WITHOUT FIELD EXPERIENCE//
LY TRAINED AND CONVENTIONALLY TRAINED FIELD RADIO REPAIRMEN
THE IMPROVEMENT OF TROUBLE SHOOTING
INCREASED SUBCALTHER SUBSTITUTION TRAINING ON 90 MM GUNNERY
MISSILE UNIT EVALUATIONS/ OPERATIONAL READINESS TESTS/ UNIT
RUCTION PERFORMANCE/ INDIVIDUAL DIFFERENCES/ TIME TO STUDY/
DEVELOPMENT AND EVALUATION OF A
THE PLANNING OF
A DESCRIPTION OF SNAP PROGRAMING/
N AND RETENTION SCORES//
AN EVALUATION OF THE EFFECTS OF
TEACHING MACHINES AND
WHAT
BEYOND
ING//
THE APPLICATION OF
MANAGEMENT CONSIDERATIONS IN
MILITARY APPLICATIONS OF
NICAL TRAINING MATERIALS FOR NIKE HERCULES JUNIOR OFFICERS/
IME TO STUDY/ PROGRAM ERRORS//
MEASURES OF ABILITY AND
THE INFLUENCE OF PRACTICE FRAMES AND VERBAL ABILITY ON
RBALIZATION AND TIMING OF INFORMATION ON PROBLEM SOLVING IN
PROBLEMS IN
LANGUAGE
SNAP
A DESCRIPTION OF SNAP
RESEARCH PROBLEMS CAUSED BY THE IMPLEMENTATION OF
TEACHING MACHINES AND
TS OF VERBALIZATION AND INFORMATION ON PROBLEM SOLVING IN
DEVELOPMENT OF A SHORT, PRACTICAL
A HANDBOOK FOR
SOME RESEARCH NEEDS IN SELECTING AND TRAINING
THE SUBJECT-MATTER EXPERT AND THE
PREFERENCE AND SUCCESS IN OCS//
PRESENTATION OF CONCEPTS IN EDUCATION AND TRAINING- THE LATT
PRESENTATION, MODES AND RESPONSE CATEGORY KNOWLEDGE OF RESUL
PRESENTATION//
PRESENTATION//
PRESENTATIONS TO THIRD MEETING OF NIKE ZEUS TRAINING PANEL,
PRINCIPLES AND TRAINING CONTENT//
PRINTED JOB AIDS FOR ELECTRONICS REPAIRMEN//
PRISONERS OF WAR IN THE KOREAN CONFLICT- A HISTORICAL ANALYS
PROBLEM SOLVING FOR USE IN TROUBLE SHOOTING RESEARCH//
PROBLEM SOLVING IN PROGRAMMED LEARNING//
PROBLEM SOLVING IN PROGRAMMED LEARNING//
PROBLEM SOLVING, VERBAL INTERACTION, COORDINATION//
PROBLEM SOLVING//
PROBLEM SOLVING TECHNIQUES AT THE NATIONAL WAR COLLEGE//
PROBLEMS AND REQUIREMENTS//
PROBLEMS ENCOUNTERED BY AMERICANS WORKING OVERSEAS- AN INSTR
PROBLEMS IN ARMOR UNITS OF SEVENTH UNITED STATES ARMY//
PROBLEMS IN ARMOR//
PROBLEMS IN PREDICTING TRAINING REQUIREMENTS FOR FUTURE WEAP
PROBLEMS IN THE DESCRIPTION OF JOBS FOR ELECTRONIC MAINTENAN
PROBLEMS IN THE RELIABILITY OF THE ADJECTIVE CHECKLIST//
PROBLEMS IN THE RETENTION OF ARMY ENLISTED PERSONNEL//
PROBLEMS IN THE TACTICAL TRAINING OF ARMORED CAVALRY PLATOON
PROBLEMS IN THE TACTICAL TRAINING OF ARMOR UNITS (U)//
PROBLEMS OF ARMY SERVICE//
PROBLEMS OF BASIC TRAINING EFFECTIVENESS//
PROBLEMS OF U.S. ARMY PERSONNEL IN LAOS AND THEIR IMPLICATIO
TECHN
PROCEDURAL GUIDE FOR TECHNICAL IMPLEMENTATION OF THE FORECAS
PROCEDURES FOR DERIVING TRAINING OBJECTIVES FOR JUNIOR OFFIC
PROCEDURES FOR DERIVING TRAINING OBJECTIVES FOR JUNIOR OFFIC
PROCEDURES TRAINING- A PRELIMINARY TEST OF A SELF-INSTRUCTIO
PROCEDURES//
HUMAN FACTORS IN THE OPERATION OF NIKE AJAX
PROCEDURES//
PROCESSING OF OLFACTORY INFORMATION//
PROCUREMENT OF COUNTER INTELLIGENCE CORPS TRAINEES//
PRODUCTIVITY AMONG RADAR CREWS//
PRODUCTIVITY STUDIES OF MILITARY GROUPS//
PRODUCTIVITY//
PROFESSIONAL AND PERSONAL PROBLEMS OF ARMY SERVICE//
PROFESSIONAL SOLDIER- A SOCIAL AND POLITICAL PORTRAIT, BY MO
PROFICIENCY AND MORALE IN GUIDED MISSILE BATTERIES//
PROFICIENCY AND THE RETENTION OF THEORY ORIENTED ELECTRONIC
PROFICIENCY COURSE//
PROFICIENCY EVALUATION IN ARMY HELICOPTER PILOT TRAINING//
PROFICIENCY IN INTERPRETING GROUND SURVEILLANCE RADAR SIGNAL
PROFICIENCY IN THE CRITICAL ARMOR SKILLS//
PROFICIENCY IN THE CRITICAL ARMOR SKILLS//
PROFICIENCY LEVELS ESSENTIAL TO 1962 TRAINING PROGRAM FOR LI
PROFICIENCY MEASUREMENT RELIABILITY OF DIFFERENCES ON CHECK
PROFICIENCY MEASUREMENT FOR TRAINING QUALITY CONTROL//
PROFICIENCY OF BASIC TRAINEES//
PROFICIENCY OF NIKE AJAX PLATOON LEADERS//
PROFICIENCY OF RIFLE PLATOONS//
PLATTRAIN- PREMISES
PROFICIENCY OF TRAINED TANK CREWMEN//
PROFICIENCY OF TRAINED TANK CREWMEN//
PROFICIENCY SCORES TO LEARNING TIME SCORES//
PROFICIENCY TESTING- A TOOL FOR TRAINING MANAGEMENT//
PROFICIENCY TESTING//
PROFICIENCY TESTS FOR BASIC COMBAT AND LIGHT INFANTRY TRAINI
PROFICIENCY TESTS FOR NIKE SYSTEM LAUNCHING PLATOON OPERATOR
PROFICIENCY TEST MANUAL//
PROFICIENCY TEST- PART II - DEVELOPMENT AND CROSS-VALIDATION
PROFICIENCY TEST- PART I - COMPARISON OF MECHANICS WITH AND
PROFICIENCY TEST//
A FOLLOW-UP STUDY OF EXPERIMENTAL
PROFICIENCY THROUGH IMPROVED MAINTENANCE MANUALS//
PROFICIENCY//
THE EFFECT OF
SOURCES OF VARIABILITY IN
PROGRAM ERRORS//
MEASURES OF ABILITY AND PROGRAMED INST
PROGRAM OF INSTRUCTION IN BASIC LAND NAVIGATION//
PROGRAM RESEARCH//
PROGRAMED INSTRUCTION//
PROGRAMED INSTRUCTION RESPONSE ORIGIN AND FORM ON ACQUISITIO
PROGRAMED INSTRUCTION AND LOW ALTITUDE AERIAL OBSERVATION//
PROGRAMED INSTRUCTION - SOME FACTORS TO CONSIDER IN IMPLEMEN
PROGRAMED INSTRUCTION IS-AND ISN T//
PROGRAMED INSTRUCTION-WHERE WE ARE TODAY IN THE MILITARY//
PROGRAMED INSTRUCTION//
PROGRAMED INSTRUCTION UNDER A DEMAND FEEDBACK SCHEDULE//
PROGRAMED INSTRUCTION TO FOREIGN LANGUAGE AND LITERACY TRAIN
PROGRAMED INSTRUCTION//
PROGRAMED INSTRUCTION//
PROGRAMED INSTRUCTION//
PROGRAMED INSTRUCTION//
DEVELOPMENT OF TECH
PROGRAMED INSTRUCTION PERFORMANCE/ INDIVIDUAL DIFFERENCES/ T
PROGRAMED INSTRUCTION PERFORMANCE/ INDIVIDUAL DIFFERENCES//
PROGRAMED LEARNING//
EFFECTS OF WRITTEN VE
PROGRAMING AND INTENSIVE ORAL-AURAL LANGUAGE COURSE//
PROGRAMING AN INTENSIVE ORAL-AURAL LANGUAGE COURSE//
PROGRAMING FOR THE FOREIGN STUDENTS//
PROGRAMING- TROUBLESHOOTING THE IMPROVED NIKE HERCULES HIPAR
PROGRAMING/ PROGRAMED INSTRUCTION//
PROGRAMED INSTRUCTION- A PLAN OF RESEARCH//
PROGRAMED INSTRUCTION//
PROGRAMED INSTRUCTION AND THE TECHNOLOGY OF TRAINING//
PROGRAMED LEARNING AND LOW ALTITUDE OBSERVATION//
PROGRAMED LEARNING IN USE- IN THE ARMY - THE PAST AND PLANS
PROGRAMED LEARNING//
PROGRAMED VIETNAMESE COURSE//
PROGRAMMERS OF AUTOMATED INSTRUCTION//
PROGRAMMERS//
PROGRAMMER//

[illegible]

228

230

INCORRECT KNOWLEDGE OF RESULTS ON COUNT AUDITORY	STIMULI	037/B/60/INNDH
ED TRAINING REQUIREMENTS FOR OPERATORS AND USERS OF FUTURE	STIMULI SYSTEMS//	032/B/60/STINTR
THE EFFECT OF PERSONALIZED	STOCKS ON RIFLE MARKSMANSHIP//	130/B/54/TRAINH
THE USE OF FOLLOWER	STUDGES FOR FIELD EVALUATION OF LEADERSHIP ABILITY//	080/B/59/NOU
COLD WEATHER OPERATION TRAINING OF INFANTRY FORCES IN THE	STRATEGIC ARMY CORPS//	029/B/64/COLDH
SUMMARY OF RESEARCH OF EXPERIMENTAL STUDIES OF	STRESS IN MAN//	040/B/61/7EIGHT
EXPERIMENTAL STUDIES OF PSYCHOLOGICAL	STRESS IN MAN//	040/B/62/7EIGHT
SUSCEPTIBILITY TO	STRESS ON A SIMPLE PSYCHOMOTOR TASK//	060/B/56/7EIGHT
A STUDY OF THE EFFECTS OF MANIFEST ANXIETY AND SITUATIONAL	STRESS ON M-1 RIFLE FIRING//	093/B/54/PRESS
THE CONSTRUCTION, VALIDATION AND APPLICATION OF SUBJECTIVE	STRESS SCALE//	040/B/54/7EIGHT
PSYCHOLOGICAL AND PHYSIOLOGICAL CRITERIA FOR	STRESS SIMULATION RESEARCH//	040/B/63/7EIGHT
DEVELOPMENT OF A VERBAL MEASURE FOR USE IN	STRESS STUDY//	041/B/54/7EIGHT
REACTIONS OF MEN UNDER	STRESS TO A PICTURE PROJECTIVE TEST//	040/B/57/7EIGHT
ENTATION AND DISCUSSION//	STRESS-SENSITIVE MEASURES IN MILITARY FIELD STUDIES- EXPERIM	040/B/59/7EIGHT
NO RELATIONSHIP TO COMBAT//	STRESS- A PRELIMINARY STUDY OF ITS STRUCTURE, MEASUREMENT, A	040/B/57/7EIGHT
SSSES//	STRESS- SUCCESSFUL EXPERIMENTAL SIMULATION OF REAL-LIFE STRE	040/B/59/7EIGHT
D DESPAIR ATTITUDES//	STRESS, WITH IMPLICATIONS FOR COMBAT TRAINING/ CONFIDENCE AN	040/B/66/7EIGHT
THE TRUMPET SOUNDS--CAN OUR TROOPS BE BATTLEPROOFED//	STRESS/ COMBAT TRAINING/ SELECTION OF FIGHTERS//	040/B/65/7EIGHT
SSFUL AND UNSUCCESSFUL MEN WORKING IN SITUATIONS OF EXTREME	STRESS// A STUDY OF THE CHARACTERISTICS OF SUCCESS	040/B/64/7EIGHT
LIDITY AND RELIABILITY OF CERTAIN MEASURES OF PSYCHOLOGICAL	STRESS//	040/B/62/7EIGHT
A NOTE ON FOSINOPENTIA AS AN INDEX OF PSYCHOLOGICAL	STRESS//	040/B/60/7EIGHT
DITY AND RELIABILITY OF CERTAIN INDICATORS OF PSYCHOLOGICAL	STRESS//	040/B/60/7EIGHT
A FUNCTION OF MANIFEST ANXIETY AND ANXIETY AND SITUATIONAL	STRESS//	093/B/54/PRESS
TRAINING FOR PERFORMANCE UNDER	STRESS//	167/B/62/03
IDIOSYNCRATIC AND NOMOTETIC	STRESSES//	040/B/58/7EIGHT
LATION BETWEEN COMBAT PERFORMANCE AND SOME FIELD LABORATORY	STRESSES//	040/B/58/7EIGHT
TO STRESS- SUCCESSFUL EXPERIMENTAL SIMULATION OF REAL-LIFE	STRESSES//	040/B/59/7EIGHT
URINARY RESPONSES TO PSYCHOLOGICAL	STRESSES//	041/B/62/7EIGHT
FAMILY BACKGROUND, AND INTELLIGENCE DATA TO PERFORMANCE IN	STRESSFUL SITUATIONS//	040/B/62/7EIGHT
NARY RESPONSES OF MAN TO AN ORDERED SERIES OF REALISTICALLY	STRESSFUL SITUATIONS//	040/B/61/7EIGHT
PROJECTIVE RESPONSES TO AN ORDERED SERIES OF REALISTICALLY	STRESSFUL SITUATIONS//	040/B/61/7EIGHT
D OF ESTIMATING THE INTERCORRELATIONS BETWEEN SCALES ON THE	STRUCTURE, MEASUREMENT, AND RELATIONSHIP TO COMBAT//	040/B/57/7EIGHT
THOD OF WIDE APPLICABILITY FOR TESTING HYPOTHESES ABOUT THE	STRUCTURES, TRAINING PROCEDURES, AND OPERATIONS OF SMALL AND	134/B/65/7EIGHT
FIELD STRESS- A PRELIMINARY STUDY OF ITS	STUDENT MOTIVATION AT AN ARMY TECHNICAL TRAINING SCHOOL//	145/B/55/WEIGH
K GROUPS//	STUDENTS WITH UNSATISFACTORY ACADEMIC AVERAGES IN BASIC FLEC	099/B/56/7EIGHT
CHANGES IN	STUDIES//	031/B/61/7EIGHT
COURSE ACHIEVEMENT OF	STUDIES IN LEADERSHIP//	040/B/57/7EIGHT
LANGUAGE PROGRAMING FOR THE FOREIGN	STUDIES//	154/B/58/01
EXPERIMENTAL DESIGN FOR FIELD	STUDY COMPARISON OF VISUAL SEARCH METHODS IN AERIAL OBSERVAT	040/B/59/7EIGHT
THE CONDUCT OF FIELD	STUDY OF GROUPS- A REVIEW OF THE LITERATURE//	159/B/53/03
A FIELD	STUDY/ PROGRAM ERRORS//	159/B/53/03
A	STUDYING LEADERSHIP//	040/B/57/7EIGHT
A METHOD FOR	SUBCARTRER SUBSTITUTION TRAINING ON 90 MM GUNNERY PROJECTING	053/B/55/7EIGHT
THE EFFECT OF INCREASED	SUBJECTIVE AND PROJECTIVE RESPONSES TO AN ORDERED SERIES OF	040/B/61/7EIGHT
QUANTITATIVE	SUBJECTIVE STRESS SCALE//	040/B/58/7EIGHT
THE CONSTRUCTION, VALIDATION AND APPLICATION OF	SUBJECTS AND PROFICIENCY LEVELS ESSENTIAL TO 1962 TRAINING P	109/B/58/7EIGHT
COMBAT	SUBJECT-MATTER EXPERT AND THE PROGRAMMER//	114/B/61/7EIGHT
THE	SUCCESS IN OCS//	040/B/54/05
PREDICTING	SUCCESS IN OFFICER CANDIDATE SCHOOL WITH AN ASSESSMENT PROG	040/B/55/7EIGHT
INSTRUCTIONAL OBJECTIVES, AND MEASURING	SUCCESS OF INSTRUCTION//	052/B/62/7EIGHT
SOME FACTORS WHICH HAVE CONTRIBUTED TO BOTH	SUCCESSFUL AND UNSUCCESSFUL AMERICAN INFANTRY SMALL-UNIT ACT	099/B/59/7EIGHT
DEPENDENCY ON	SUPERVISORS, PROFICIENCY AND MORALE IN GUIDED MISSILE BATT	040/B/61/7EIGHT
DESCRIPTION OF	SUPERVISORY JOBS//	114/B/61/7EIGHT
THE EFFECTS OF	SUPERVISORY THREAT ON DECISION MAKING AND RISK-TAKING IN A S	147/B/66/7EIGHT
A PERSONNEL	SUPPORT SYSTEM RESEARCH AND DEVELOPMENT PROCESS//	137/B/62/7EIGHT
SURVEY OF OPINIONS OF GRADUATES OF THE	SURFACE-TO-AIR MISSILE OFFICER BASIC COURSE//	114/B/58/7EIGHT
OPERATIVE OPERATING CHARACTERISTICS AND EMPLOYMENT OF GROUND	SURVEILLANCE RADAR IN THE INFANTRY BATTLE GROUP//	137/B/62/7EIGHT
OPERATOR PROFICIENCY IN INTERPRETING GROUND	SURVEILLANCE RADAR SIGNALS//	127/B/62/7EIGHT
RESEARCH STRATEGY IN INVESTIGATING AERIAL	SURVEILLANCE SYSTEMS TARGET DETECTION//	040/B/58/7EIGHT
EXPLORATORY STUDY ON THE INTERROGATION PROCESS-	SURVEY ACTIVITIES, CONCEPTUALIZATION AND PILOT STUDIES POW//	040/B/62/7EIGHT
A	SURVEY AND ANALYSIS OF VIGILANCE RESEARCH//	138/B/61/7EIGHT
A	SURVEY OF HUMAN FACTORS IN MILITARY PERFORMANCE IN EXTREME C	020/B/60/7EIGHT
A	SURVEY OF MAJ SKILLS REQUIREMENTS//	071/B/62/7EIGHT
A	SURVEY OF OPERATIONAL FLYING ACTIVITIES OF FIXED WING AVIAT	040/B/62/7EIGHT
A	SURVEY OF OPERATIONAL FLYING ACTIVITIES OF ROTARY WING AVIAT	135/B/55/7EIGHT
A	SURVEY OF OPINIONS ABOUT THE UNIT ROTATION PLAN (OPERATION G	114/B/58/7EIGHT
A	SURVEY OF OPINIONS OF GRADUATES OF THE SURFACE-TO-AIR MISSI	135/B/55/7EIGHT
A	SURVEY OF OPINIONS REGARDING OPERATION GYROSCOPE IN THE FINS	077/B/58/7EIGHT
A	SURVEY OF ORGANIZATION MAINTENANCE OF THE MEDIUM TANK//	105/B/63/7EIGHT
A	SURVEY OF PROBLEMS IN THE TACTICAL TRAINING OF ARMORED CAVAL	043/B/57/7EIGHT
A	SURVEY OF THE ARMY CARGO HELICOPTER PILOT COURSE//	159/B/55/02
A	SURVEY OF THE BASIC ATROUNDE TRAINING COURSE AT FORT BENNING	159/B/55/03
A	SURVEY ON MORALE AND LEADERSHIP AS AFFECTED BY THE ATFA-1 AR	104/B/56/7EIGHT
A	SURVEY//	104/B/56/7EIGHT
A	REPAIR RECORDS OF FIELD RADIO R	104/B/56/7EIGHT
A	REPAIR RECORDS OF FIELD RADIO R	151/B/66/7EIGHT
A	SUSCEPTIBILITY/ PSYCHOLOGICAL REACTION/POW//	020/B/60/7EIGHT
A	SUSPENSION TRAINER, DEVICE 29-FA-61//	127/B/62/7EIGHT
A	SWEAT UNDER FIELD CONDITIONS//	040/B/62/7EIGHT
A	SYNTHETIC CONTACT FLIGHT TRAINING/ TRAINING DEVICE/ TRAINING	135/B/55/7EIGHT
A	SYNTHETIC HELICOPTER FLIGHT TRAINING/ ATTRITION/ TRANSFER OF	036/B/60/7EIGHT
A	SYSTEM DESIGN AND DEVELOPMENT//	

[illegible]

[illegible]

VIATION TRAINING DEVICES//	THE IMPORTANCE OF DETERMINING IDENTIFICATION OF ELECTRONICS MAINTENANCE	TRAINING REQUIREMENTS INFORMATION IN THE DESIGN AND USE OF A TRAINING REQUIREMENTS FOR ELECTRONIC SYSTEM MAINTENANCE//	036/B/63/ECHO
	THE PREDICTION OF THE PREDICTION OF ANTICIPATING	TRAINING REQUIREMENTS FOR FUTURE WEAPON SYSTEMS//	051/B/60/FOREC
JUNIOR OFFICERS/ SAM BATTERY OFFICERS/ JOB AID/ HANDBOOKS/	SOME PROBLEMS IN PREDICTING PROJECTED MANPOWER NEEDS, AND PROJECTED OFFICER	TRAINING REQUIREMENTS FOR FUTURE WEAPON SYSTEMS//	083/B/64/NICOR
FO SYSTEMS//		TRAINING REQUIREMENTS FOR FUTURE WEAPON SYSTEMS//	137/B/61/UPSTR
6//		TRAINING REQUIREMENTS FOR FUTURE WEAPON SYSTEMS//	137/B/62/UPSTR
PON SYSTEMS//	SOME RELATIONSHIPS BETWEEN	TRAINING REQUIREMENTS FOR FUTURE WEAPON SYSTEMS//	137/B/60/UPSTR
		TRAINING REQUIREMENTS FOR FUTURE WEAPON SYSTEMS//	137/B/60/UPSTR
A DESCRIPTION OF FIVE FIELD EXPERIMENTS//	SOME CONTRIBUTIONS OF	TRAINING RESEARCH AND ITS IMPLICATIONS FOR EXECUTIVE TRAININ	114/B/61/SAMOFF
SE AND REALITY//		TRAINING RESEARCH AND HUMAN ENGINEERING IN THE DESIGN OF MEA	122/B/66/STINTR
	MAINTENANCE PERSONNEL AND	TRAINING RESEARCH IN THE UNITED STATES ARMY//	167/F/60/07
	LEARNING THEORY AND RESEARCH PARADIGMS APPLIED TO	TRAINING RESEARCH ON LOW ALTITUDE VISUAL AERIAL OBSERVATION-	167/F/63/02
COMMENTS ON CONTENT AND METHODS BASED ON ELECTRONIC SYSTEMS	ANXIETY SCALES FOR USE IN ARMY	TRAINING RESEARCH TO THE PERSONNEL SYSTEMS CONCEPT//	084/B/62/OBSER
	SCALES AND STANDARDS FOR MILITARY	TRAINING RESEARCH UTILIZING MAN COMPUTER INTERACTIONS- PROMI	162/F/62/09
		TRAINING RESEARCH- A BIBLIOGRAPHY//	167/F/63/08
	A CONCEPTUAL APPROACH TO	TRAINING RESEARCH- SOME DISSONANCES//	068/B/58/MAINT
	LET S TAKE A LOOK AT AVIATION	TRAINING RESEARCH//	167/F/64/06
THE UTILIZATION OF MASTER S LEVEL PERSONNEL IN MILITARY		TRAINING RESEARCH//	014/B/54/ANSCA
N OF SEMI-ORDERED FACTUAL MATERIALS//	EFFECTS OF	TRAINING RESEARCH//	159/F/59/01
OBSERVATIONS OF SEVEN ARMED FORCES SPECIALIZED	CHANGES IN STUDENT MOTIVATION AT AN ARMY TECHNICAL	TRAINING RESEARCH//	159/F/60/02
	THE SCIENCE OF	TRAINING RESEARCH//	167/F/58/08
	A PRELIMINARY	TRAINING RESEARCH//	167/F/59/04
THE DESIGN FOR A PARAMETRIC STUDY OF A LEADERSHIP		TRAINING RESEARCH//	162/F/61/12
G TRAINING OBJECTIVES FOR JUNIOR OFFICER JOBS/ SELECTION OF	MOONLIGHT II-	TRAINING RESPONSE MODE, TEST FORM, AND MEASURE ON ACQUISITION	167/F/60/03
/	MOONLIGHT IV-	TRAINING SCHOOLS//	022/B/61/BASIC
	THE EFFECTS OF INCREASING AND DECREASING	TRAINING SCHOOL//	040/B/57/FIGHT
THROUGH SYNTHETIC CONTACT FLIGHT TRAINING/ TRAINING DEVICE/	THE EFFECTS OF INCREASING AND DECREASING	TRAINING SOLDIERS//	145/B/55/WIGWA
TATIONS//	PSYCHOLOGICAL WARFARE JOB REQUIREMENTS AND	TRAINING STUDY OF THE M-34 COCKPIT-PROCEDURES TRAINER//	162/F/59/04
CURRICULUM//	STUDIES OF FIXED PROCEDURES	TRAINING SYSTEM//	105/B/60/REFLE
/	COUNTERINSURGENCY	TRAINING TASKS//	080/B/61/NCO
A PROVISIONAL CORE CURRICULUM FOR INFANTRY NIGHT OPERATIONS	TELEVISION IN ARMY	TRAINING THE INFANTRY SOLDIER TO FIRE THE M1 RIFLE AT NIGHT//	114/B/66/SAMOFF
ORGANIZING THE PRESENTATION OF CONCEPTS IN EDUCATION AND	SCIENCE AND ARMY	TRAINING THE RIFLE SQUAD IN NIGHT TECHNIQUE OF FIRE//	078/B/54/MOONL
TENANCE- ANALYSIS OF FIELD ACTIVITIES WITH IMPLICATIONS FOR		TRAINING TIME ON PROFICIENCY IN THE CRITICAL ARMOR SKILLS//	078/B/55/MOONL
S MAINTENANCE- ANALYSIS OF ACTIVITIES WITH IMPLICATIONS FOR		TRAINING TIME ON PROFICIENCY IN THE CRITICAL ARMOR SKILLS//	118/B/59/SHOCK
T TRAINEE PERFORMANCE FOLLOWING SYNTHETIC HELICOPTER FLIGHT		TRAINING TRANSFER// REDUCTION OF HELICOPTER PILOT ATTRITION	118/B/59/SHOCK
MODEL OF BEHAVIOR UNDER STRESS, WITH IMPLICATIONS FOR COMBAT		TRAINING WITH ACTIVE PARTICIPATION- SOME METHODOLOGICAL LIMIT	036/B/65/ECHO
EL//	A STUDY OF CATEGORY IV PERSONNEL IN BASIC	TRAINING- AN EVALUATION OF THE PSYCHOLOGICAL WARFARE SCHOOL	049/B/63/FIREP
	OPERATION TRAINFIRE- A NEW IDEA IN TROOP	TRAINING- A PRELIMINARY TEST OF A SELF-INSTRUCTIONAL METHOD//	097/B/56/PSYJO
PET SOUNDS--CAN OUR TROOPS BE BATTLEPROOFED/ STRESS/ COMBAT		TRAINING- A SELECTED SUBJECT BIBLIOGRAPHY//	125/B/63/TEXTR
LYSIS OF VISUAL DISCRIMINATION IN HELICOPTER CONTROL/ PILOT		TRAINING- CONCEPTUALIZATION AND PROPOSED CONTENT//	120/B/62/SPECI
YSIS OF FIELD ACTIVITIES AND PROBLEMS WITH IMPLICATIONS FOR		TRAINING- EVALUATION OF TELEVISION IN ARMY BASIC TRAINING//	123/B/60/SWING
AN EXPERIMENTAL EVALUATION OF A DRIVER SIMULATOR FOR SAFETY		TRAINING- THE LATTICE TECHNIQUE//	133/B/54/TV
HELICOPTER PILOT ATTRITION THROUGH SYNTHETIC CONTACT FLIGHT		TRAINING- WHAT HUMOR RESEARCHERS ARE DOING, 1961//	075/B/62/METHO
ABILITY GROUPING IN ARMY BASIC COMBAT		TRAINING- PART II -- T-38//	162/F/61/06
U.S. ARMY PERSONNEL IN LAOS AND THEIR IMPLICATIONS FOR AREA		TRAINING- PART I -- M-33//	039/B/57/FICOH
ACHIEVEMENT IN BASIC		TRAINING- ORDNANCE IFC ELECTRONICS MAIN	039/B/56/FICOH
OPMENT OF A LIST OF MINIMAL TRAINING GOALS FOR BASIC COMBAT		TRAINING- ORDNANCE IFC ELECTRONIC	036/B/66/ECHO
CURRENT APPROACHES TO DRIVER SAFETY		TRAINING- ATTRITION/ TRANSFER OF TRAINING// CHANGES IN FLIGH	040/B/66/FIGHTE
ATION AND VERBAL DESCRIPTION TECHNIQUES IN TARGET DETECTION		TRAINING- CONFIDENCE AND DESPAIR ATTITUDES// A CONCEPTUAL M	016/B/65/AREA
RGETS AS COLLECTIVE REINFORCEMENT IN GROUP TARGET DETECTION		TRAINING- CROSS-CULTURAL COMMUNICATION//	026/B/66/CENTER
S ANALYSIS AND TRAINING METHODS FOR ELECTRONICS MAINTENANCE		TRAINING- LOW APTITUDE/ REMEDIAL EDUCATION/ MARGINAL PERSONN	130/B/58/TRAINF
THE EFFECT OF MOCK TOWER HEIGHT IN AIRBORNE		TRAINING- MARKSMANSHIP//	040/B/65/FIGHTE
Y OF PRIOR RESEARCH ON INTEGRATED CONTACT/INSTRUMENT FLIGHT		TRAINING- SELECTION OF FIGHTERS//	113/B/66/ROTOR
INTACT- INTEGRATED INSTRUMENT CONTACT PRIMARY FLIGHT		TRAINING- SIMULATION/ VISUAL CUES//	067/B/65/LOWENT
VING FLIGHT PROFICIENCY EVALUATION IN ARMY HELICOPTER PILOT		TRAINING- TARGET LOCATION//	099/B/55/RADAR
TRAINING QUALITY CONTROL AND ITS APPLICATION TO HELICOPTER		TRAINING- TASK ANALYSIS//	147/C/66/ES-20
A QUALITY CONTROL PROGRAM APPLIED TO HELICOPTER		TRAINING- THE AAFCS M-33 OPERATOR- ANAL	036/B/65/ECHO
LET S TAKE A LOOK AT QUALITY CONTROL IN HELICOPTER		TRAINING- TRAINING DEVICE/ DRIVER ATTITUDES/ ACCIDENTS//	015/B/56/APTIT
NT OF PROFICIENCY TESTS FOR BASIC COMBAT AND LIGHT INFANTRY		TRAINING- TRAINING DEVICE/ TRAINING TRANSFER// REDUCTION OF	016/B/64/AREA
YSIS OF FIELD ACTIVITIES AND PROBLEMS WITH IMPLICATIONS FOR		TRAINING//	022/B/55/BASIC
LUATION OF A BASIC EDUCATION PROGRAM IN THE ARMY/ APTITUDE/		TRAINING//	022/B/60/BASIC
ITIES OF FIELD RADIO REPAIR PERSONNEL WITH IMPLICATIONS FOR		TRAINING//	147/C/65/ES-20
INFANTRY COMBAT		TRAINING//	049/B/62/FIREP
THE QUICK OR DEAD RIFLE COMBAT MARKSMANSHIP		TRAINING//	049/B/62/FIREP
FFICER TRAINING RESEARCH AND ITS IMPLICATIONS FOR EXECUTIVE		TRAINING//	051/B/64/FOREC
APPLICATION OF A METHOD OF EVALUATING		TRAINING//	055/B/56/HILO
APPLICATION OF A METHOD OF EVALUATING		TRAINING//	057/B/58/INTAC
THE TRAINFIRE MARKSMANSHIP		TRAINING//	057/B/60/INTAC
SHOOT FAST AND STRAIGHT/ RIFLE MARKSMANSHIP		TRAINING//	063/B/62/LIFT
IMPROVED SILHOUETTE TARGETS FOR MARKSMANSHIP		TRAINING//	063/B/63/LIFT
RADIO-CONTROLLED TANKS FOR REALISTIC COMBAT		TRAINING//	063/B/61/LIFT
RADAR TARGET DETECTION AS INFLUENCED BY EXPERIENCE AND		TRAINING//	067/B/61/LOWEN
A COMPARISON OF WHOLE VERSUS PART METHODS OF MARKSMANSHIP		TRAINING//	083/B/57/NICOR
APHY OF RESEARCH STUDIES IN AVIATION MECHANICAL MAINTENANCE		TRAINING//	094/B/55/PROFI
AN ANALYSIS OF THE REDEYE SYSTEM WITH SOME SUGGESTIONS FOR		TRAINING//	099/B/54/RADAR
CONTROLLING THE QUALITY OF LEADERSHIP		TRAINING//	104/B/55/READ
LEMENTS IN THE DESCRIPTION OF JOBS FOR ELECTRONIC MAINTENANCE		TRAINING//	106/B/58/REPAI
THE ROLE OF MEDIA IN EDUCATION AND		TRAINING//	109/B/62/RIFLE
THE ENGINEERING OF		TRAINING//	109/B/63/RIFLE
PROGRAMMED INSTRUCTION AND THE TECHNOLOGY OF		TRAINING//	114/B/61/SAMOFF
N OF PROGRAMED INSTRUCTION TO FOREIGN LANGUAGE AND LITERACY		TRAINING//	129/B/62/TRADE
CONCEPTS OF		TRAINING//	129/B/64/TRADE
LEARNING TO LEAD/ LEADERSHIP		TRAINING//	130/B/56/TRAINF
PSYCHOLOGICAL RESEARCH IN ELECTRONIC MAINTENANCE		TRAINING//	130/B/57/TRAINF
THE SIMULATION OF CROSS-CULTURAL COMMUNICATION/ AREA		TRAINING//	130/B/58/TRAINF
D PATROLLINGPROGRAMS FOR THE LIGHT WEAPONS INFANTRYMAN/ AIT		TRAINING//	136/B/60/UNIT
SOME PSYCHOLOGICAL ASPECTS IN FOREIGN LANGUAGE		TRAINING//	138/B/64/VICIL
THE EFFECTS OF PAIRING, REST INTERVALS, SIGNAL RATE, AND		TRAINING//	144/B/54/WHOLE
		TRAINING//	159/F/57/01
		TRAINING//	157/E/61/T8S
		TRAINING//	159/F/65/01
		TRAINING//	167/F/57/02
		TRAINING//	167/F/59/03
		TRAINING//	167/F/59/05
		TRAINING//	167/F/62/04
		TRAINING//	167/F/60/02
		TRAINING//	167/F/63/04
		TRAINING//	167/F/65/01
		TRAINING//	162/F/62/01
		TRAINING//	162/F/66/02
		TRAINING//	167/F/65/05
		TRAINING//	016/B/66/AREA
		TRAINING//	109/B/65/RIFLEM
		TRAINING//	070/B/65/MALT
		TRAINING//	138/B/62/VIGIL

FOLLOWING SYNTHETIC HELICOPTER FLIGHT TRAINING/ ATTRITION/
SYNTHETIC CONTACT FLIGHT TRAINING/ TRAINING DEVICE/ TRAINING
RESPONSES TO

ORDS OF FIELD RADIO REPAIRMEN ON THE RT-66, RT-67, OR RT-68
TROUBLESHOOTING THE IMPROVED NIKE HERCULES HIPAR
REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON FM
REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON AM

IS/ CRITERION TEST//
EVALUATION OF A SPECIAL LIVE-FIRING
TOMIC EXERCISES//
DESERT ROCK V- REACTIONS OF
DESERT ROCK I- A PSYCHOLOGICAL STUDY OF
ED TO ATTRITION//
DESERT ROCK I- A PSYCHOLOGICAL STUDY OF
AN ANALYSIS OF THE M4A

OPERATION TRAINFIRE- A NEW IDEA IN
THE TRUMPET SOUNDS--CAN OUR
OF FIGHTERS//
PREPARATION OF
CHARACTERISTICS OF
TS-DESERT ROCK IV//
SOME PROBLEMS IN THE ANALYSIS OF
TEST FOR THE AAFCS M-33 RADAR MECHANIC AND OBSERVATIONS ON
NUALS//
THE IMPROVEMENT OF
AN ANALYSIS OF PROBLEM SOLVING FOR USE IN
DNANCE DETACHMENTS//
PREPARATION OF MAINTRAIN

THE DEVELOPMENT AND EVALUATION OF AN IMPROVED ELECTRONICS
AN ANNOTATED BIBLIOGRAPHY ON THE
SNAP PROGRAMING-
//
THE DEVELOPMENT OF PERFORMANCE CRITERIA FOR
THE RELATIVE EFFICIENCY OF DIFFERENT
REQUIREMENTS FOR RESEARCH ON USES OF THE
EFFECTS OF

OPINION TOWARD THE ARMY//
CK BOOKS//
YSIS OF SOCIAL AND POLITICAL ORGANIZATION OF KOREAN POWS IN
ABSOLUTE IDENTIFICATION OF MUNSSELL HUES
RESPONSES TO TRANSFORMATIONS- REMEMBERING AND
ARMY RESEARCH ON INDIVIDUAL AND
SOURCES OF VARIABILITY IN MISSILE
LEADERSHIP AT SMALL

Y IN MISSILE UNIT EVALUATIONS/ OPERATIONAL READINESS TESTS/
A SURVEY OF OPINIONS ABOUT THE
INCIDENTAL OBSERVATIONS GATHERED DURING RESEARCH IN COMBAT
LEADERSHIP IN SMALL MILITARY
COURSE ACHIEVEMENT OF STUDENTS WITH
SOME FACTORS WHICH HAVE CONTRIBUTED TO BOTH SUCCESSFUL AND
LY STRESSFUL SITUATIONS//
BLOOD AND

ANCE OF TRAINING REQUIREMENTS INFORMATION IN THE DESIGN AND
FEEDS, AND PROJECTED TRAINING REQUIREMENTS FOR OPERATORS AND
ORMATION//
REQUIREMENTS FOR RESEARCH ON
DERIVING, SPECIFYING, AND
THE

RESEARCH//
SEARCH IMPLEMENTATION//
FACTORS INFLUENCING
THE CONSTRUCTION,
CAL STRESS//
THE CONTENT

RY FIELD STUDIES- EXPERIMENTATION AND DISCUSSION//
THE PRIMARY
Y FOR TESTING HYPOTHESES ABOUT THE STRUCTURE OF QUALITATIVE
ANALYSIS OF
EFFECTIVENESS OF
THERAVADA BUDDHISM- A
RECOGNITION OF

THE PERFORMANCE OF ORGANIZATIONAL MAINTENANCE BY TRACK
HUMAN FACTORS IN THE AIR CUSHION
UNDER REDUCED SENSORY INPUT//
INFLUENCE OF PRIOR
EFFECTS OF
FD LEARNING//
EFFECTS OF WRITTEN
N PROGRAMED LEARNING//
EFFECTS OF
EXPERIENCED IN THE DARK AS A FUNCTION OF INSTRUCTION AND PRIOR
UAL DIFFERENCES//
THE INFLUENCE OF PRACTICE FRAMES AND
THE EFFECTS OF
ORMANCE//
THE EFFECTS OF

THE RELATIVE USEFULNESS OF ACTIVE PARTICIPATION AND
TEAM EFFECTIVENESS-- STUDY OF SMALL GROUP PROBLEM SOLVING,
COMPETING ASSOCIATIONS//
DEVELOPMENT OF A

AL FACTORS//
IMILAR STIMULI OR RESPONSES//
IMILAR STIMULI OR RESPONSES//
ED SENSORY INPUT//
INFLUENCE OF INSTRUCTIONS ON
TARGET DETECTABILITY ON AN A-SCOPE AS INFLUENCED BY
ON AN A-TYPE RADAR DISPLAY AS A FUNCTION OF HORIZONTAL AND

TYPE RADAR DISPLAY AS A FUNCTION OF HORIZONTAL AND VERTICAL
LITY ON AN A-SCOPE AS INFLUENCED BY VERTICAL AND HORIZONTAL
SOME LANGUAGE ASPECTS OF THE U.S. ADVISORY ROLE IN SOUTH
DEVELOPMENT OF A SHORT, PRACTICAL PROGRAMMED
DESIGN OF A SHORT, AUTOMATED COURSE IN
RADAR TARGET DETECTION AS A FUNCTION OF SEARCH AREA AND
NTED SEARCHLIGHT//
THE EFFECTS OF OBSERVER LOCATION AND
THE RELATIONSHIP BETWEEN

RELATION//
4-HOUR WATCH//
SUSTAINED
AUDITORY
SUSTAINED
ATCH//

THE EFFECTS OF AUTHORITARIANISM ON
L VARIABLES//
NG, REST INTERVALS, SIGNAL RATE, AND TRANSFER CONDITIONS ON
IPLE-TYPE SIGNAL PRESENTATION//
THE EFFECTS OF KNOWLEDGE OF RESULTS (TRUE AND FALSE) ON
EDUNDANT SIGNAL PRESENTATION//
A SURVEY AND ANALYSIS OF
PERFORMANCE OF MENTAL DEFICIENTS ON A SIMPLE

TRANSFER OF TRAINING// CHANGES-IN FLIGHT TRAINEE PERFORMANCE
TRANSFER// REDUCTION OF HELICOPTER PILOT ATTRITION THROUGH S
TRANSFORMATIONS- REMEMBERING AND UNDERSTANDING//
TRANSITION FROM CIVILIAN TO ARMY LIFE//
TRANSMITTER-RECEIVER SURVEY//
REPAIR REC
SNAP P

TRANSMITTER//
TRANSMITTERS AND MAN-PAKED FM SETS/ JOB ANALYSIS//
TRANSMITTERS AND RECEIVERS/ TASK ANALYSIS//
TREATMENT OF AN ARMY ELECTRONICS TRAINING COURSE/ JOB ANALYSIS
TRIGGER-SQUEEZE EXERCISE//
TROOP PARTICIPANTS AND FORWARD VOLUNTEER OFFICER GROUPS TO A
TROOP REACTIONS TO AN ATOMIC EXPLOSION//
TROOP REACTIONS TO AN ATOMIC EXPLOSION-ADDITIONAL DATA RELAT
TROOP TEST FIRING DATA (U)//
TROOP TRAINING/ MARKSMANSHIP//
TROOPS BE BATTLEPROOFED/ STRESS/ COMBAT TRAINING/ SELECTION
TROOPS FOR ATOMIC MANEUVERS//
TROOPS WITH VARYING LEVELS OF INFORMATION ABOUT ATOMIC EFFEC
TROUBLE SHOOTING BEHAVIOR//
TROUBLE SHOOTING BEHAVIOR//
TROUBLE SHOOTING PROFICIENCY THROUGH IMPROVED MAINTENANCE MA
TROUBLE SHOOTING RESEARCH//
TROUBLES REPORTED BY ELECTRONICS REPAIR PERSONNEL IN NIKE OR
TROUBLESHOOTING MANUALS//
TROUBLESHOOTING MANUAL//
TROUBLESHOOTING OF ELECTRONIC EQUIPMENT//
TROUBLESHOOTING THE IMPROVED NIKE HERCULES HIPAR TRANSMITTER
TURRET MECHANICS//
TYPES OF ITEMS IN SPECIAL PURPOSE INTEREST TESTS//
UNAIDED EYE IN THE COLLECTION OF BATTLEFIELD INFORMATION//
UNCERTAINTY ABOUT ORIGINAL ENLISTMENT ON REPORTED CHANGE IN
UNCONVENTIONAL WARFARE- AN ANNOTATED BIBLIOGRAPHY OF PAPERRA
UNC POW CAMPS, 1950-51//
UNDER RED ILLUMINATION//
UNDERSTANDING//
UNIT EFFECTIVENESS//
UNIT EVALUATIONS/ OPERATIONAL READINESS TESTS/ UNIT PROFICIE
UNIT LEVEL//
UNIT PROFICIENCY//
UNIT ROTATION PLAN (OPERATION GYROSCOPE)//
UNIT//
UNITS- SOME RECENT RESEARCH FINDINGS//
UNSATISFACTORY ACADEMIC AVERAGES IN BASIC ELECTRONICS/ APIT
UNSUCCESSFUL AMERICAN INFANTRY SMALL-UNIT ACTIONS//
URINARY RESPONSES OF MAN TO AN ORDERED SERIES OF REALISTICAL
URINARY RESPONSES TO PSYCHOLOGICAL STRESSES//
THE IMPORT
USE OF AVIATION TRAINING DEVICES//
USERS OF FUTURE STINFO SYSTEMS//
PROJECTED MAMPWFR N
USERS OF THE UNAIDED EYE IN THE COLLECTION OF BATTLEFIELD INF
USING INSTRUCTIONAL OBJECTIVES//
UTILIZATION OF MASTER S LEVEL PERSONNEL IN MILITARY TRAINING
UTILIZATION OF RESEARCH FINDINGS IN INSTITUTIONAL CHANGE/ RE
VALIDATION AND APPLICATION OF SUBJECTIVE STRESS SCALE//
VALIDITY AND RELIABILITY OF CERTAIN INDICATORS OF PSYCHOLOGI
VALIDITY OF INSTRUCTIONAL OBJECTIVES/ JOB ANALYSIS//
VALIDITY OF TWO TYPES OF STRESS-SENSITIVE MEASURES IN MILITA
VARIABLES IN DIRECTED CROSS-CULTURAL CHANGE//
A METHOD OF WIDE APPLICABILITY
VARIANCE DESIGNS WITH DISPROPORTIONATE SURCLASS NUMBERS//
VARIATIONS IN CODE PRACTICE/ MOTIVATION/ MONOTONY//
VEHICLE FOR TECHNICAL CHANGE//
VEHICLE MECHANICS AND MAINTENANCE SERGEANTS//
VEHICLES BY OBSERVERS LOOKING INTO A SEARCHLIGHT BEAM//
VEHICLES (ACV)//
VERBALIZATION AND INSTRUCTIONS ON VISUAL SENSATIONS REPORTED
VERBALIZATION AND INFORMATION ON PROBLEM SOLVING IN PROGRAMM
VERBALIZATION AND TIMING OF INFORMATION ON PROBLEM SOLVING I
VERBALIZATION//
VISUAL SENSATIONS EXP
VERBAL ABILITY ON PROGRAMED INSTRUCTION PERFORMANCE/ INDIVID
VERBAL AND NON-VERBAL KNOWLEDGE OF RESULTS ON DETECTION PER
VERBAL COORDINATION AND PERFORMANCE IN SMALL MILITARY TEAMS/
VERBAL DEFENSE//
VERBAL DESCRIPTION TECHNIQUES IN TARGET DETECTION TRAINING//
VERBAL INTERACTION, COORDINATION// INTERACTION CONTENT AND
VERBAL LEARNING AND RETENTION AS A FUNCTION OF THE NUMBER OF
VERBAL MEASURE FOR USE IN STRESS STUDY//
VERBAL MEDIATION IN REVERSE ASSOCIATION- THE ROLE OF TEMPOR
VERBAL PAIRED-ASSOCIATE LEARNING AS A FUNCTION OF GROUPING S
VERBAL PAIRED-ASSOCIATE LEARNING AS A FUNCTION OF GROUPING S
VERBAL REPORT OF VISUAL SENSATIONS UNDER CONDITIONS OF REDUC
VERTICAL AND HORIZONTAL VIDEO AMPLIFICATION//
TARGET DETECTABILITY
VERTICAL VIDEO AMPLIFICATION//
TARGET DETECTABILITY
VICTORY BEFORE DAWN ARMOR NIGHT GUNNERY//
TARGET DETECTABILITY ON AN A-
VIDEO AMPLIFICATION//
TARGET DETECTABI
VIDEO AMPLIFICATION//
TARGET DETECTABI
VIETNAM//
VIETNAMESE COURSE//
VIETNAMESE- AN INTERIM REPORT//
VIEWING DISTANCE//
VIEWING METHOD ON TARGET DETECTION WITH THE 18-INCH TANK-KOU
VIGILANCE AND MONOTONOUS WORK//
VIGILANCE AS A FUNCTION OF SENSORY DEPRIVATION AND SOCIAL IS
VIGILANCE II- SIGNAL DETECTION FOR TWO-MAN TEAMS DURING A 2
VIGILANCE IN REPEATED SESSIONS//
VIGILANCE I - SIGNAL DETECTION DURING A 24-HOUR CONTINUOUS W
VIGILANCE PERFORMANCE AS A FUNCTION OF PAIRED MONITORING//
VIGILANCE PERFORMANCE AS A FUNCTION OF INTERPOLATED REST//
VIGILANCE PERFORMANCE//
VIGILANCE PERFORMANCE AS A FUNCTION OF TASK AND ENVIRONMENTA
VIGILANCE PERFORMANCE//
THE EFFECTS OF PAIRI
VIGILANCE PERFORMANCE UNDER CONDITIONS OF SINGLE VERSUS MULT
VIGILANCE PERFORMANCE//
VIGILANCE PERFORMANCE//
VIGILANCE PERFORMANCE UNDER CONDITIONS OF REDUNDANT AND NONR
VIGILANCE RESEARCH//
VIGILANCE RESEARCH//
VIGILANCE TASK//

REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON FM
REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON AM
DIAGNOSIS AND
EVALUATION OF A SPECIAL LIVE-FIRING
DESERT ROCK V- REACTIONS OF
DESERT ROCK I- A PSYCHOLOGICAL STUDY OF
DESERT ROCK I- A PSYCHOLOGICAL STUDY OF
AN ANALYSIS OF THE M4A
OPERATION TRAINFIRE- A NEW IDEA IN
THE TRUMPET SOUNDS--CAN OUR
PREPARATION OF
CHARACTERISTICS OF
SOME PROBLEMS IN THE ANALYSIS OF
TEST FOR THE AAFCS M-33 RADAR MECHANIC AND OBSERVATIONS ON
THE IMPROVEMENT OF
AN ANALYSIS OF PROBLEM SOLVING FOR USE IN
PREPARATION OF MAINTRAIN
THE DEVELOPMENT AND EVALUATION OF AN IMPROVED ELECTRONICS
AN ANNOTATED BIBLIOGRAPHY ON THE
SNAP PROGRAMING-
THE DEVELOPMENT OF PERFORMANCE CRITERIA FOR
THE RELATIVE EFFICIENCY OF DIFFERENT
REQUIREMENTS FOR RESEARCH ON USES OF THE
EFFECTS OF
OPINION TOWARD THE ARMY//
CK BOOKS//
YSIS OF SOCIAL AND POLITICAL ORGANIZATION OF KOREAN POWS IN
ABSOLUTE IDENTIFICATION OF MUNSSELL HUES
RESPONSES TO TRANSFORMATIONS- REMEMBERING AND
ARMY RESEARCH ON INDIVIDUAL AND
SOURCES OF VARIABILITY IN MISSILE
LEADERSHIP AT SMALL
A SURVEY OF OPINIONS ABOUT THE
INCIDENTAL OBSERVATIONS GATHERED DURING RESEARCH IN COMBAT
LEADERSHIP IN SMALL MILITARY
COURSE ACHIEVEMENT OF STUDENTS WITH
SOME FACTORS WHICH HAVE CONTRIBUTED TO BOTH SUCCESSFUL AND
LY STRESSFUL SITUATIONS//
BLOOD AND

ANCE OF TRAINING REQUIREMENTS INFORMATION IN THE DESIGN AND
FEEDS, AND PROJECTED TRAINING REQUIREMENTS FOR OPERATORS AND
ORMATION//
REQUIREMENTS FOR RESEARCH ON
DERIVING, SPECIFYING, AND
THE
RESEARCH//
SEARCH IMPLEMENTATION//
FACTORS INFLUENCING
THE CONSTRUCTION,
CAL STRESS//
THE CONTENT

RY FIELD STUDIES- EXPERIMENTATION AND DISCUSSION//
THE PRIMARY
Y FOR TESTING HYPOTHESES ABOUT THE STRUCTURE OF QUALITATIVE
ANALYSIS OF
EFFECTIVENESS OF
THERAVADA BUDDHISM- A
RECOGNITION OF
HUMAN FACTORS IN THE AIR CUSHION
UNDER REDUCED SENSORY INPUT//
INFLUENCE OF PRIOR
EFFECTS OF
FD LEARNING//
EFFECTS OF WRITTEN
N PROGRAMED LEARNING//
EFFECTS OF
EXPERIENCED IN THE DARK AS A FUNCTION OF INSTRUCTION AND PRIOR
UAL DIFFERENCES//
THE INFLUENCE OF PRACTICE FRAMES AND
THE EFFECTS OF
ORMANCE//
THE EFFECTS OF

THE RELATIVE USEFULNESS OF ACTIVE PARTICIPATION AND
TEAM EFFECTIVENESS-- STUDY OF SMALL GROUP PROBLEM SOLVING,
COMPETING ASSOCIATIONS//
DEVELOPMENT OF A

AL FACTORS//
IMILAR STIMULI OR RESPONSES//
IMILAR STIMULI OR RESPONSES//
ED SENSORY INPUT//
INFLUENCE OF INSTRUCTIONS ON
TARGET DETECTABILITY ON AN A-SCOPE AS INFLUENCED BY
ON AN A-TYPE RADAR DISPLAY AS A FUNCTION OF HORIZONTAL AND

TYPE RADAR DISPLAY AS A FUNCTION OF HORIZONTAL AND VERTICAL
LITY ON AN A-SCOPE AS INFLUENCED BY VERTICAL AND HORIZONTAL
SOME LANGUAGE ASPECTS OF THE U.S. ADVISORY ROLE IN SOUTH
DEVELOPMENT OF A SHORT, PRACTICAL PROGRAMMED
DESIGN OF A SHORT, AUTOMATED COURSE IN
RADAR TARGET DETECTION AS A FUNCTION OF SEARCH AREA AND
NTED SEARCHLIGHT//
THE EFFECTS OF OBSERVER LOCATION AND
THE RELATIONSHIP BETWEEN

RELATION//
4-HOUR WATCH//
SUSTAINED
AUDITORY
SUSTAINED
ATCH//

THE EFFECTS OF AUTHORITARIANISM ON
L VARIABLES//
NG, REST INTERVALS, SIGNAL RATE, AND TRANSFER CONDITIONS ON
IPLE-TYPE SIGNAL PRESENTATION//
THE EFFECTS OF KNOWLEDGE OF RESULTS (TRUE AND FALSE) ON
EDUNDANT SIGNAL PRESENTATION//
A SURVEY AND ANALYSIS OF
PERFORMANCE OF MENTAL DEFICIENTS ON A SIMPLE

TRANSFER OF TRAINING// CHANGES-IN FLIGHT TRAINEE PERFORMANCE
TRANSFER// REDUCTION OF HELICOPTER PILOT ATTRITION THROUGH S
TRANSFORMATIONS- REMEMBERING AND UNDERSTANDING//
TRANSITION FROM CIVILIAN TO ARMY LIFE//
TRANSMITTER-RECEIVER SURVEY//
REPAIR REC
SNAP P

TRANSMITTER//
TRANSMITTERS AND MAN-PAKED FM SETS/ JOB ANALYSIS//
TRANSMITTERS AND RECEIVERS/ TASK ANALYSIS//
TREATMENT OF AN ARMY ELECTRONICS TRAINING COURSE/ JOB ANALYSIS
TRIGGER-SQUEEZE EXERCISE//
TROOP PARTICIPANTS AND FORWARD VOLUNTEER OFFICER GROUPS TO A
TROOP REACTIONS TO AN ATOMIC EXPLOSION//
TROOP REACTIONS TO AN ATOMIC EXPLOSION-ADDITIONAL DATA RELAT
TROOP TEST FIRING DATA (U)//
TROOP TRAINING/ MARKSMANSHIP//
TROOPS BE BATTLEPROOFED/ STRESS/ COMBAT TRAINING/ SELECTION
TROOPS FOR ATOMIC MANEUVERS//
TROOPS WITH VARYING LEVELS OF INFORMATION ABOUT ATOMIC EFFEC
TROUBLE SHOOTING BEHAVIOR//
TROUBLE SHOOTING BEHAVIOR//
TROUBLE SHOOTING PROFICIENCY THROUGH IMPROVED MAINTENANCE MA
TROUBLE SHOOTING RESEARCH//
TROUBLES REPORTED BY ELECTRONICS REPAIR PERSONNEL IN NIKE OR
TROUBLESHOOTING MANUALS//
TROUBLESHOOTING MANUAL//
TROUBLESHOOTING OF ELECTRONIC EQUIPMENT//
TROUBLESHOOTING THE IMPROVED NIKE HERCULES HIPAR TRANSMITTER
TURRET MECHANICS//
TYPES OF ITEMS IN SPECIAL PURPOSE INTEREST TESTS//
UNAIDED EYE IN THE COLLECTION OF BATTLEFIELD INFORMATION//
UNCERTAINTY ABOUT ORIGINAL ENLISTMENT ON REPORTED CHANGE IN
UNCONVENTIONAL WARFARE- AN ANNOTATED BIBLIOGRAPHY OF PAPERRA
UNC POW CAMPS, 1950-51//
UNDER RED ILLUMINATION//
UNDERSTANDING//
UNIT EFFECTIVENESS//
UNIT EVALUATIONS/ OPERATIONAL READINESS TESTS/ UNIT PROFICIE
UNIT LEVEL//
UNIT PROFICIENCY//
UNIT ROTATION PLAN (OPERATION GYROSCOPE)//
UNIT//
UNITS- SOME RECENT RESEARCH FINDINGS//
UNSATISFACTORY ACADEMIC AVERAGES IN BASIC ELECTRONICS/ APIT
UNSUCCESSFUL AMERICAN INFANTRY SMALL-UNIT ACTIONS//
URINARY RESPONSES OF MAN TO AN ORDERED SERIES OF REALISTICAL
URINARY RESPONSES TO PSYCHOLOGICAL STRESSES//
THE IMPORT
USE OF AVIATION TRAINING DEVICES//
USERS OF FUTURE STINFO SYSTEMS//
PROJECTED MAMPWFR N
USERS OF THE UNAIDED EYE IN THE COLLECTION OF BATTLEFIELD INF
USING INSTRUCTIONAL OBJECTIVES//
UTILIZATION OF MASTER S LEVEL PERSONNEL IN MILITARY TRAINING
UTILIZATION OF RESEARCH FINDINGS IN INSTITUTIONAL CHANGE/ RE
VALIDATION AND APPLICATION OF SUBJECTIVE STRESS SCALE//
VALIDITY AND RELIABILITY OF CERTAIN INDICATORS OF PSYCHOLOGI
VALIDITY OF INSTRUCTIONAL OBJECTIVES/ JOB ANALYSIS//
VALIDITY OF TWO TYPES OF STRESS-SENSITIVE MEASURES IN MILITA
VARIABLES IN DIRECTED CROSS-CULTURAL CHANGE//
A METHOD OF WIDE APPLICABILITY
VARIANCE DESIGNS WITH DISPROPORTIONATE SURCLASS NUMBERS//
VARIATIONS IN CODE PRACTICE/ MOTIVATION/ MONOTONY//
VEHICLE FOR TECHNICAL CHANGE//
VEHICLE MECHANICS AND MAINTENANCE SERGEANTS//
VEHICLES BY OBSERVERS LOOKING INTO A SEARCHLIGHT BEAM//
VEHICLES (ACV)//
VERBALIZATION AND INSTRUCTIONS ON VISUAL SENSATIONS REPORTED
VERBALIZATION AND INFORMATION ON PROBLEM SOLVING IN PROGRAMM
VERBALIZATION AND TIMING OF INFORMATION ON PROBLEM SOLVING I
VERBALIZATION//
VISUAL SENSATIONS EXP
VERBAL ABILITY ON PROGRAMED INSTRUCTION PERFORMANCE/ INDIVID
VERBAL AND NON-VERBAL KNOWLEDGE OF RESULTS ON DETECTION PER
VERBAL COORDINATION AND PERFORMANCE IN SMALL MILITARY TEAMS/
VERBAL DEFENSE//
VERBAL DESCRIPTION TECHNIQUES IN TARGET DETECTION TRAINING//
VERBAL INTERACTION, COORDINATION// INTERACTION CONTENT AND
VERBAL LEARNING AND RETENTION AS A FUNCTION OF THE NUMBER OF
VERBAL MEASURE FOR USE IN STRESS STUDY//
VERBAL MEDIATION IN REVERSE ASSOCIATION- THE ROLE OF TEMPOR
VERBAL PAIRED-ASSOCIATE LEARNING AS A FUNCTION OF GROUPING S
VERBAL PAIRED-ASSOCIATE LEARNING AS A FUNCTION OF GROUPING S
VERBAL REPORT OF VISUAL SENSATIONS UNDER CONDITIONS OF REDUC
VERTICAL AND HORIZONTAL VIDEO AMPLIFICATION//
TARGET DETECTABILITY
VERTICAL VIDEO AMPLIFICATION//
TARGET DETECTABILITY
VICTORY BEFORE DAWN ARMOR NIGHT GUNNERY//
TARGET DETECTABILITY ON AN A-
VIDEO AMPLIFICATION//
TARGET DETECTABI
VIDEO AMPLIFICATION//
TARGET DETECTABI
VIETNAM//
VIETNAMESE COURSE//
VIETNAMESE- AN INTERIM REPORT//
VIEWING DISTANCE//
VIEWING METHOD ON TARGET DETECTION WITH THE 18-INCH TANK-KOU
VIGILANCE AND MONOTONOUS WORK//
VIGILANCE AS A FUNCTION OF SENSORY DEPRIVATION AND SOCIAL IS
VIGILANCE II- SIGNAL DETECTION FOR TWO-MAN TEAMS DURING A 2
VIGILANCE IN REPEATED SESSIONS//
VIGILANCE I - SIGNAL DETECTION DURING A 24-HOUR CONTINUOUS W
VIGILANCE PERFORMANCE AS A FUNCTION OF PAIRED MONITORING//
VIGILANCE PERFORMANCE AS A FUNCTION OF INTERPOLATED REST//
VIGILANCE PERFORMANCE//
VIGILANCE PERFORMANCE AS A FUNCTION OF TASK AND ENVIRONMENTA
VIGILANCE PERFORMANCE//
THE EFFECTS OF PAIRI
VIGILANCE PERFORMANCE UNDER CONDITIONS OF SINGLE VERSUS MULT
VIGILANCE PERFORMANCE//
VIGILANCE PERFORMANCE//
VIGILANCE PERFORMANCE UNDER CONDITIONS OF REDUNDANT AND NONR
VIGILANCE RESEARCH//
VIGILANCE RESEARCH//
VIGILANCE TASK//

REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON FM
REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON AM
DIAGNOSIS AND
EVALUATION OF A SPECIAL LIVE-FIRING
DESERT ROCK V- REACTIONS OF
DESERT ROCK I- A PSYCHOLOGICAL STUDY OF
DESERT ROCK I- A PSYCHOLOGICAL STUDY OF
AN ANALYSIS OF THE M4A
OPERATION TRAINFIRE- A NEW IDEA IN
THE TRUMPET SOUNDS--CAN OUR
PREPARATION OF
CHARACTERISTICS OF
SOME PROBLEMS IN THE ANALYSIS OF
TEST FOR THE AAFCS M-33 RADAR MECHANIC AND OBSERVATIONS ON
THE IMPROVEMENT OF
AN ANALYSIS OF PROBLEM SOLVING FOR USE IN
PREPARATION OF MAINTRAIN
THE DEVELOPMENT AND EVALUATION OF AN IMPROVED ELECTRONICS
AN ANNOTATED BIBLIOGRAPHY ON THE
SNAP PROGRAMING-
THE DEVELOPMENT OF PERFORMANCE CRITERIA FOR
THE RELATIVE EFFICIENCY OF DIFFERENT
REQUIREMENTS FOR RESEARCH ON USES OF THE
EFFECTS OF
OPINION TOWARD THE ARMY//
CK BOOKS//
YSIS OF SOCIAL AND POLITICAL ORGANIZATION OF KOREAN POWS IN
ABSOLUTE IDENTIFICATION OF MUNSSELL HUES
RESPONSES TO TRANSFORMATIONS- REMEMBERING AND
ARMY RESEARCH ON INDIVIDUAL AND
SOURCES OF VARIABILITY IN MISSILE
LEADERSHIP AT SMALL
A SURVEY OF OPINIONS ABOUT THE
INCIDENTAL OBSERVATIONS GATHERED DURING RESEARCH IN COMBAT
LEADERSHIP IN SMALL MILITARY
COURSE ACHIEVEMENT OF STUDENTS WITH
SOME FACTORS WHICH HAVE CONTRIBUTED TO BOTH SUCCESSFUL AND
LY STRESSFUL SITUATIONS//
BLOOD AND

ANCE OF TRAINING REQUIREMENTS INFORMATION IN THE DESIGN AND
FEEDS, AND PROJECTED TRAINING REQUIREMENTS FOR OPERATORS AND
ORMATION//
REQUIREMENTS FOR RESEARCH ON
DERIVING, SPECIFYING, AND
THE
RESEARCH//
SEARCH IMPLEMENTATION//
FACTORS INFLUENCING
THE CONSTRUCTION,
CAL STRESS//
THE CONTENT

RY FIELD STUDIES- EXPERIMENTATION AND DISCUSSION//
THE PRIMARY
Y FOR TESTING HYPOTHESES ABOUT THE STRUCTURE OF QUALITATIVE
ANALYSIS OF
EFFECTIVENESS OF
THERAVADA BUDDHISM- A
RECOGNITION OF
HUMAN FACTORS IN THE AIR CUSHION
UNDER REDUCED SENSORY INPUT//
INFLUENCE OF PRIOR
EFFECTS OF
FD LEARNING//
EFFECTS OF WRITTEN
N PROGRAMED LEARNING//
EFFECTS OF
EXPERIENCED IN THE DARK AS A FUNCTION OF INSTRUCTION AND PRIOR
UAL DIFFERENCES//
THE INFLUENCE OF PRACTICE FRAMES AND
THE EFFECTS OF
ORMANCE//
THE EFFECTS OF

REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON FM
REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON AM
DIAGNOSIS AND
EVALUATION OF A SPECIAL LIVE-FIRING
DESERT ROCK V- REACTIONS OF
DESERT ROCK I- A PSYCHOLOGICAL STUDY OF
DESERT ROCK I- A PSYCHOLOGICAL STUDY OF
AN ANALYSIS OF THE M4A
OPERATION TRAINFIRE- A NEW IDEA IN
THE TRUMPET SOUNDS--CAN OUR
PREPARATION OF
CHARACTERISTICS OF
SOME PROBLEMS IN THE ANALYSIS OF
TEST FOR THE AAFCS M-33 RADAR MECHANIC AND OBSERVATIONS ON
THE IMPROVEMENT OF
AN ANALYSIS OF PROBLEM SOLVING FOR USE IN
PREPARATION OF MAINTRAIN
THE DEVELOPMENT AND EVALUATION OF AN IMPROVED ELECTRONICS
AN ANNOTATED BIBLIOGRAPHY ON THE
SNAP PROGRAMING-
THE DEVELOPMENT OF PERFORMANCE CRITERIA FOR
THE RELATIVE EFFICIENCY OF DIFFERENT
REQUIREMENTS FOR RESEARCH ON USES OF THE
EFFECTS OF
OPINION TOWARD THE ARMY//
CK BOOKS//
YSIS OF SOCIAL AND POLITICAL ORGANIZATION OF KOREAN POWS IN
ABSOLUTE IDENTIFICATION OF MUNSSELL HUES
RESPONSES TO TRANSFORMATIONS- REMEMBERING AND
ARMY RESEARCH ON INDIVIDUAL AND
SOURCES OF VARIABILITY IN MISSILE
LEADERSHIP AT SMALL
A SURVEY OF OPINIONS ABOUT THE
INCIDENTAL OBSERVATIONS GATHERED DURING RESEARCH IN COMBAT
LEADERSHIP IN SMALL MILITARY
COURSE ACHIEVEMENT OF STUDENTS WITH
SOME FACTORS WHICH HAVE CONTRIBUTED TO BOTH SUCCESSFUL AND
LY STRESSFUL SITUATIONS//
BLOOD AND

ANCE OF TRAINING REQUIREMENTS INFORMATION IN THE DESIGN AND
FEEDS, AND PROJECTED TRAINING REQUIREMENTS FOR OPERATORS AND
ORMATION//
REQUIREMENTS FOR RESEARCH ON
DERIVING, SPECIFYING, AND
THE
RESEARCH//
SEARCH IMPLEMENTATION//
FACTORS INFLUENCING
THE CONSTRUCTION,
CAL STRESS//
THE CONTENT

RY FIELD STUDIES- EXPERIMENTATION AND DISCUSSION//
THE PRIMARY
Y FOR TESTING HYPOTHESES ABOUT THE STRUCTURE OF QUALITATIVE
ANALYSIS OF
EFFECTIVENESS OF
THERAVADA BUDDHISM- A
RECOGNITION OF
HUMAN FACTORS IN THE AIR CUSHION
UNDER REDUCED SENSORY INPUT//
INFLUENCE OF PRIOR
EFFECTS OF
FD LEARNING//
EFFECTS OF WRITTEN
N PROGRAMED LEARNING//
EFFECTS OF
EXPERIENCED IN THE DARK AS A FUNCTION OF INSTRUCTION AND PRIOR
UAL DIFFERENCES//
THE INFLUENCE OF PRACTICE FRAMES AND
THE EFFECTS OF
ORMANCE//
THE EFFECTS OF

THE RELATIVE USEFULNESS OF ACTIVE PARTICIPATION AND
TEAM EFFECTIVENESS-- STUDY OF SMALL GROUP PROBLEM SOLVING,
COMPETING ASSOCIATIONS//
DEVELOPMENT OF A

AL FACTORS//
IMILAR STIMULI OR RESPONSES//
IMILAR STIMULI OR RESPONSES//
ED SENSORY INPUT//
INFLUENCE OF INSTRUCTIONS ON
TARGET DETECTABILITY ON AN A-SCOPE AS INFLUENCED BY
ON AN A-TYPE RADAR DISPLAY AS A FUNCTION OF HORIZONTAL AND

TYPE RADAR DISPLAY AS A FUNCTION OF HORIZONTAL AND VERTICAL
LITY ON AN A-SCOPE AS INFLUENCED BY VERTICAL AND HORIZONTAL
SOME LANGUAGE ASPECTS OF THE U.S. ADVISORY ROLE IN SOUTH
DEVELOPMENT OF A SHORT, PRACTICAL PROGRAMMED
DESIGN OF A SHORT, AUTOMATED COURSE IN
RADAR TARGET DETECTION AS A FUNCTION OF SEARCH AREA AND
NTED SEARCHLIGHT//
THE EFFECTS OF OBSERVER LOCATION AND
THE RELATIONSHIP BETWEEN

RELATION//
4-HOUR WATCH//
SUSTAINED
AUDITORY
SUSTAINED
ATCH//

THE EFFECTS OF AUTHORITARIANISM ON
L VARIABLES//
NG, REST INTERVALS, SIGNAL RATE, AND TRANSFER CONDITIONS ON
IPLE-TYPE SIGNAL PRESENTATION//
THE EFFECTS OF KNOWLEDGE OF RESULTS (TRUE AND FALSE) ON
EDUNDANT SIGNAL PRESENTATION//
A SURVEY AND ANALYSIS OF
PERFORMANCE OF MENTAL DEFICIENTS ON A SIMPLE

TRANSFER OF TRAINING// CHANGES-IN FLIGHT TRAINEE PERFORMANCE
TRANSFER// REDUCTION OF HELICOPTER PILOT ATTRITION THROUGH S
TRANSFORMATIONS- REMEMBERING AND UNDERSTANDING//
TRANSITION FROM CIVILIAN TO ARMY LIFE//
TRANSMITTER-RECEIVER SURVEY//
REPAIR REC
SNAP P

TRANSMITTER//
TRANSMITTERS AND MAN-PAKED FM SETS/ JOB ANALYSIS//
TRANSMITTERS AND RECEIVERS/ TASK ANALYSIS//
TREATMENT OF AN ARMY ELECTRONICS TRAINING COURSE/ JOB ANALYSIS
TRIGGER-SQUEEZE EXERCISE//
TROOP PARTICIPANTS AND FORWARD VOLUNTEER OFFICER GROUPS TO A
TROOP REACTIONS TO AN ATOMIC EXPLOSION//
TROOP REACTIONS TO AN ATOMIC EXPLOSION-ADDITIONAL DATA RELAT
TROOP TEST FIRING DATA (U)//
TROOP TRAINING/ MARKSMANSHIP//
TROOPS BE BATTLEPROOFED/ STRESS/ COMBAT TRAINING/ SELECTION
TROOPS FOR ATOMIC MANEUVERS//
TROOPS WITH VARYING LEVELS OF INFORMATION ABOUT ATOMIC EFFEC
TROUBLE SHOOTING BEHAVIOR//
TROUBLE SHOOTING BEHAVIOR//
TROUBLE SHOOTING PROFICIENCY THROUGH IMPROVED MAINTENANCE MA
TROUBLE SHOOTING RESEARCH//
TROUBLES REPORTED BY ELECTRONICS REPAIR PERSONNEL IN NIKE OR
TROUBLESHOOTING MANUALS//
TROUBLESHOOTING MANUAL//
TROUBLESHOOTING OF ELECTRONIC EQUIPMENT//
TROUBLESHOOTING THE IMPROVED NIKE HERCULES HIPAR TRANSMITTER
TURRET MECHANICS//
TYPES OF ITEMS IN SPECIAL PURPOSE INTEREST TESTS//
UNAIDED EYE IN THE COLLECTION OF BATTLEFIELD INFORMATION//
UNCERTAINTY ABOUT ORIGINAL ENLISTMENT ON REPORTED CHANGE IN
UNCONVENTIONAL WARFARE- AN ANNOTATED BIBLIOGRAPHY OF PAPERRA
UNC POW CAMPS, 1950-51//
UNDER RED ILLUMINATION//
UNDERSTANDING//
UNIT EFFECTIVENESS//
UNIT EVALUATIONS/ OPERATIONAL READINESS TESTS/ UNIT PROFICIE
UNIT LEVEL//
UNIT PROFICIENCY//
UNIT ROTATION PLAN (OPERATION GYROSCOPE)//
UNIT//
UNITS- SOME RECENT RESEARCH FINDINGS//
UNSATISFACTORY ACADEMIC AVERAGES IN BASIC ELECTRONICS/ APIT
UNSUCCESSFUL AMERICAN INFANTRY SMALL-UNIT ACTIONS//
URINARY RESPONSES OF MAN TO AN ORDERED SERIES OF REALISTICAL
URINARY RESPONSES TO PSYCHOLOGICAL STRESSES//
THE IMPORT
USE OF AVIATION TRAINING DEVICES//
USERS OF FUTURE STINFO SYSTEMS//
PROJECTED MAMPWFR N
USERS OF THE UNAIDED EYE IN THE COLLECTION OF BATTLEFIELD INF
USING INSTRUCTIONAL OBJECTIVES//
UTILIZATION OF MASTER S LEVEL PERSONNEL IN MILITARY TRAINING
UTILIZATION OF RESEARCH FINDINGS IN INSTITUTIONAL CHANGE/ RE
VALIDATION AND APPLICATION OF SUBJECTIVE STRESS SCALE//
VALIDITY AND RELIABILITY OF CERTAIN INDICATORS OF PSYCHOLOGI
VALIDITY OF INSTRUCTIONAL OBJECTIVES/ JOB ANALYSIS//
VALIDITY OF TWO TYPES OF STRESS-SENSITIVE MEASURES IN MILITA
VARIABLES IN DIRECTED CROSS-CULTURAL CHANGE//
A METHOD OF WIDE APPLICABILITY
VARIANCE DESIGNS WITH DISPROPORTIONATE SURCLASS NUMBERS//
VARIATIONS IN CODE PRACTICE/ MOTIVATION/ MONOTONY//
VEHICLE FOR TECHNICAL CHANGE//
VEHICLE MECHANICS AND MAINTENANCE SERGEANTS//
VEHICLES BY OBSERVERS LOOKING INTO A SEARCHLIGHT BEAM//
VEHICLES (ACV)//
VERBALIZATION AND INSTRUCTIONS ON VISUAL SENSATIONS REPORTED
VERBALIZATION AND INFORMATION ON PROBLEM SOLVING IN PROGRAMM
VERBALIZATION AND TIMING OF INFORMATION ON PROBLEM SOLVING I
VERBALIZATION//
VISUAL SENSATIONS EXP
VERBAL ABILITY ON PROGRAMED INSTRUCTION PERFORMANCE/ INDIVID
VERBAL AND NON-VERBAL KNOWLEDGE OF RESULTS ON DETECTION PER
VERBAL COORDINATION AND PERFORMANCE IN SMALL MILITARY TEAMS/
VERBAL DEFENSE//
VERBAL DESCRIPTION TECHNIQUES IN TARGET DETECTION TRAINING//
VERBAL INTERACTION, COORDINATION// INTERACTION CONTENT AND
VERBAL LEARNING AND RETENTION AS A FUNCTION OF THE NUMBER OF
VERBAL MEASURE FOR USE IN STRESS STUDY//
VERBAL MEDIATION IN REVERSE ASSOCIATION- THE ROLE OF TEMPOR
VERBAL PAIRED-ASSOCIATE LEARNING AS A FUNCTION OF GROUPING S
VERBAL PAIRED-ASSOCIATE LEARNING AS A FUNCTION OF GROUPING S
VERBAL REPORT OF VISUAL SENSATIONS UNDER CONDITIONS OF REDUC
VERTICAL AND HORIZONTAL VIDEO AMPLIFICATION//
TARGET DETECTABILITY
VERTICAL VIDEO AMPLIFICATION//
TARGET DETECTABILITY
VICTORY BEFORE DAWN ARMOR NIGHT GUNNERY//
TARGET DETECTABILITY ON AN A-
VIDEO AMPLIFICATION//
TARGET DETECTABI
VIDEO AMPLIFICATION//
TARGET DETECTABI
VIETNAM//
VIETNAMESE COURSE//
VIETNAMESE- AN INTERIM REPORT//
VIEWING DISTANCE//
VIEWING METHOD ON TARGET DETECTION WITH THE 18-INCH TANK-KOU
VIGILANCE AND MONOTONOUS WORK//
VIGILANCE AS A FUNCTION OF SENSORY DEPRIVATION AND SOCIAL IS
VIGILANCE II- SIGNAL DETECTION FOR TWO-MAN TEAMS DURING A 2
VIGILANCE IN REPEATED SESSIONS//
VIGILANCE I - SIGNAL DETECTION DURING A 24-HOUR CONTINUOUS W
VIGILANCE PERFORMANCE AS A FUNCTION OF PAIRED MONITORING//
VIGILANCE PERFORMANCE AS A FUNCTION OF INTERPOLATED REST//
VIGILANCE PERFORMANCE//
VIGILANCE PERFORMANCE AS A FUNCTION OF TASK AND ENVIRONMENTA
VIGILANCE PERFORMANCE//
THE EFFECTS OF PAIRI
VIGILANCE PERFORMANCE UNDER CONDITIONS OF SINGLE VERSUS MULT
VIGILANCE PERFORMANCE//
VIGILANCE PERFORMANCE//
VIGILANCE PERFORMANCE UNDER CONDITIONS OF REDUNDANT AND NONR
VIGILANCE RESEARCH//
VIGILANCE RESEARCH//
VIGILANCE TASK//

REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON FM
REPAIR RECORDS OF FIELD RADIO REPAIRMEN ON AM
DIAGNOSIS AND
EVALUATION OF A SPECIAL LIVE-FIRING
DESERT ROCK V- REACTIONS OF
DESERT ROCK I- A PSYCHOLOGICAL STUDY OF
DESERT ROCK I- A PSYCHOLOGICAL STUDY OF
AN ANALYSIS OF THE M4A
OPERATION TRAINFIRE- A NEW IDEA IN
THE TRUMPET SOUNDS--CAN OUR
PREPARATION OF
CHARACTERISTICS OF
SOME PROBLEMS IN THE ANALYSIS OF
TEST FOR THE AAFCS M-33 RADAR MECHANIC AND OBSERVATIONS ON
THE IMPROVEMENT OF
AN ANALYSIS OF PROBLEM SOLVING FOR USE IN
PREPARATION OF MAINTRAIN
THE DEVELOPMENT AND EVALUATION OF AN IMPROVED ELECTRONICS
AN ANNOTATED BIBLIOGRAPHY ON THE
SNAP PROGRAMING-
THE DEVELOPMENT OF PERFORMANCE CRITERIA FOR
THE RELATIVE EFFICIENCY OF DIFFERENT
REQUIREMENTS FOR RESEARCH ON USES OF THE
EFFECTS OF
OPINION TOWARD THE ARMY//
CK BOOKS//
YSIS OF SOCIAL AND POLITICAL ORGANIZATION OF KOREAN POWS IN
ABSOLUTE IDENTIFICATION OF MUNSSELL HUES
RESPONSES TO TRANSFORMATIONS- REMEMBERING AND
ARMY RESEARCH ON INDIVIDUAL AND
SOURCES OF VARIABILITY IN MISSILE
LEADERSHIP AT SMALL
A SURVEY OF OPINIONS ABOUT THE
INCIDENTAL OBSERVATIONS GATHERED DURING RESEARCH IN COMBAT
LEADERSHIP IN SMALL MILITARY
COURSE ACHIEVEMENT OF STUDENTS WITH
SOME FACTORS WHICH HAVE CONTRIBUTED TO BOTH SUCCESSFUL AND
LY STRESSFUL SITUATIONS//
BLOOD AND

ANCE OF TRAINING REQUIREMENTS INFORMATION IN THE DESIGN AND
FEEDS, AND PROJECTED TRAINING REQUIREMENTS FOR OPERATORS AND
ORMATION//
REQUIREMENTS FOR RESEARCH ON
DERIVING, SPECIFYING, AND
THE
RESEARCH//
SEARCH IMPLEMENTATION//
FACTORS INFLUENCING
THE CONSTRUCTION,
CAL STRESS//
THE CONTENT

RY FIELD STUDIES- EXPERIMENTATION AND DISCUSSION//
THE PRIMARY
Y FOR TESTING HYPOTHESES ABOUT THE STRUCTURE OF QUALITATIVE
ANALYSIS OF
EFFECTIVENESS OF
THERAVADA BUDDHISM- A
RECOGNITION OF
HUMAN FACTORS IN THE AIR CUSHION
UNDER REDUCED SENSORY INPUT//
INFLUENCE OF PRIOR
EFFECTS OF
FD LEARNING//
EFFECTS OF WRITTEN
N PROGRAMED LEARNING//
EFFECTS OF
EXPERIENCED IN THE DARK AS A FUNCTION OF INSTRUCTION AND PRIOR
UAL DIFFERENCES//
THE INFLUENCE OF PRACTICE FRAMES AND
THE EFFECTS OF
ORMANCE//
THE EFFECTS OF

THE RELATIVE USEFULNESS OF ACTIVE PARTICIPATION AND
TEAM EFFECTIVENESS-- STUDY OF SMALL GROUP PROBLEM SOLVING,
COMPETING ASSOCIATIONS//
DEVELOPMENT OF A

AL FACTORS//
IMILAR STIMULI OR RESPONSES//
IMILAR STIMULI OR RESPONSES//
ED SENSORY INPUT//
INFLUENCE OF INSTRUCTIONS ON
TARGET DETECTABILITY ON AN A-SCOPE AS INFLUENCED BY
ON AN A-TYPE RADAR DISPLAY AS A FUNCTION OF HORIZONTAL AND

TYPE RADAR DISPLAY AS A FUNCTION OF HORIZONTAL AND VERTICAL
LITY ON AN A-SCOPE AS INFLUENCED BY VERTICAL AND HORIZONTAL
SOME LANGUAGE ASPECTS OF THE U.S. ADVISORY ROLE IN SOUTH
DEVELOPMENT OF A SHORT, PRACTICAL PROGRAMMED
DESIGN OF A SHORT, AUTOMATED COURSE IN
RADAR TARGET DETECTION AS A FUNCTION OF SEARCH AREA AND
NTED SEARCHLIGHT//
THE EFFECTS OF OBSERVER LOCATION AND
THE RELATIONSHIP BETWEEN

RELATION//
4-HOUR WATCH//
SUSTAINED
AUDITORY
SUSTAINED
ATCH//

THE EFFECTS OF AUTHORITARIANISM ON
L VARIABLES//
NG, REST INTERVALS, SIGNAL RATE, AND TRANSFER CONDITIONS ON
IPLE-TYPE SIGNAL PRESENTATION//
THE EFFECTS OF KNOWLEDGE OF RESULTS (TRUE AND FALSE) ON
EDUNDANT SIGNAL PRESENTATION//
A SURVEY AND ANALYSIS OF
PERFORMANCE OF MENTAL DEFICIENTS ON A SIMPLE

TRANSFER OF TRAINING// CHANGES-IN FLIGHT TRAINEE PERFORMANCE
TRANSFER// REDUCTION OF HELICOPTER PILOT ATTRITION THROUGH S
TRANSFORMATIONS- REMEMBERING AND UNDERSTANDING//
TRANSITION FROM CIVILIAN TO ARMY LIFE//
TRANSMITTER-RECEIVER SURVEY//
REPAIR REC
SNAP P

TRANSMITTER//
TRANSMITTERS AND MAN-PAKED FM SETS/ JOB ANALYSIS//
TRANSMITTERS AND RECEIVERS/ TASK ANALYSIS//
TREATMENT OF AN ARMY ELECTRONICS TRAINING COURSE/ JOB ANALYSIS
TRIGGER-SQUEEZE EXERCISE//
TROOP PARTICIPANTS AND FORWARD VOLUNTEER OFFICER GROUPS TO A
TROOP REACTIONS TO AN ATOMIC EXPLOSION//
TROOP REACTIONS TO AN ATOMIC EXPLOSION-ADDITIONAL DATA RELAT
TROOP TEST FIRING DATA (U)//
TROOP TRAINING/ MARKSMANSHIP//
TRO

PERFORMANCE OF MENTAL DEFICIENTS ON A SIMPLE AND KNOWLEDGE OF RESULTS ON THE PERFORMANCE OF A SIMPLE ECT OF INCREASING SIGNAL LOAD ON DETECTION PERFORMANCE OF A OF EXPERIMENTER ATTITUDE AND CONTINGENT REINFORCEMENT IN A	VIGILANCE TASK// VIGILANCE TASK// VIGILANCE TASK// VIGILANCE TASK// VIGILANCE TECHNIQUE// VIGILANCE- A COMPARISON IN AUDITORY, VISUAL, AND COMBINED AU VIGILANCE- A REPLICATION// VIGILANCE- A SYMPOSIUM// VIGILANCE// VIGILANCE// VIGILANCE// VIGILANCE// EFFECTS OF METHOD OF PRESENTATION, MOD THE INFLUENC	THE EFFECTS OF REV EFF THE ROLE
DIO-VISUAL TASKS//	EFFECTS OF INTELLIGENCE ON	
	MONEY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	162/F/62/10 162/F/62/10 162/F/64/J02 162/F/64/J02 037/B/61/ENDOR 182/F/62/12 162/F/61/10 162/F/64/J06 138/B/64/VIGIL 167/F/60/J06 162/F/61/J09 162/F/64/J08 138/B/63/VIGIL 123/R/60/SWING 123/R/64/SWING 018/R/54/ARMORN 143/B/54/VISIO 104/R/54/RANGE 084/B/62/DSSSE 162/F/61/J07 113/B/66/ROTOR 077/J/62/MORIL 084/R/59/OBSER 149/C/66/E5-44 113/R/66/ROTOR 151/J/62/BR-6 162/F/61/11 138/B/60/VIGIL 084/B/59/OBSER 151/J/63/BR-6 151/J/62/BR-6 151/J/62/BR-6 037/B/58/ENDOR 037/B/58/ENDOR 017/J/62/BR-6 084/B/62/OBSER 162/F/62/12 031/B/65/CONTAC 084/B/53/DCS 035/R/53/DESE-V 143/B/54/VOLAT 143/B/54/VOLAT 143/B/54/VOLAT 127/B/54/TICK 093/R/54/POLIC 097/B/56/PSYJO 097/B/56/PSYJO 162/F/58/J01 137/R/61/UPSTR 137/R/62/UPSTR 137/R/60/UPSTR 137/R/60/UPSTR 167/F/60/J07 137/R/61/UPSTR 137/R/58/UPSTR 077/R/62/MORIL 095/R/59/PROTE 095/R/60/PROTE 029/R/64/COLDS 162/F/64/J01 029/R/60/COLDS 095/F/61/PROTE 144/R/54/HOLE 144/R/54/HOLE 144/R/54/HOLE 167/F/58/J06 079/R/64/MOSAI 134/R/65/IINIFE 162/F/66/J01 125/R/62/TEXTR 162/F/61/J01 075/R/66/METHO 130/R/57/TRAINI 018/R/59/ARMORN 053/R/55/GUNNE 132/R/53/TRIGG
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS// TRAINING RESEARCH ON LOW ALTITUDE EFFECTS OF INTELLIGENCE ON SIGNAL DETECTION IN MINATION IN HELICOPTER CONTROL/ PILOT TRAINING/ SIMULATION/ UIPMENT// THE EFFECTIVENESS OF TS// A FIELD TEST OF	
	MONETARY INCENTIVES AND THE ROLE OF EXPECTANCY IN AUDITORY THE ROLE OF EXPECTANCY IN AUDITORY	
ES AND RESPONSE CATEGORY KNOWLEDGE OF RESULTS ON DETECTION/ E OF TASK AND ENVIRONMENTAL VARIABLES ON THE MAINTENANCE OF	SALVAGE THE BLIND WARRIOR- LOW MOONLIGHT AND NIGHT RIMENTAL MODEL OF THE AMERICAN OPTICAL COMPANY ARMED FORCES EVALUATION OF AN EXPERIMENTAL ARMED FORCES SETTINGS IN ARMY POPULATION AND THEIR RELATION TO PERTINENT MENTS	

DOCUMENT CONTROL DATA - R&D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author) Human Resources Research Office, The George Washington University, Alexandria, Virginia 22314		2a. REPORT SECURITY CLASSIFICATION Unclassified	
		2b. GROUP	
3. REPORT TITLE HUMAN RESOURCES RESEARCH OFFICE BIBLIOGRAPHY OF PUBLICATIONS, AS OF 30 JUNE 1966			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) Cumulative Bibliography			
5. AUTHOR(S) (Last name, first name, initial)			
6. REPORT DATE September 1966		7a. TOTAL NO. OF PAGES 234	7b. NO. OF REFS
8a. CONTRACT OR GRANT NO. DA 44-188-ARO-2		9a. ORIGINATOR'S REPORT NUMBER(S)	
b. PROJECT NO. 2J024701A712 01			
c.		9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
d.			
10. AVAILABILITY/LIMITATION NOTICES Distribution of this document is unlimited.			
11. SUPPLEMENTARY NOTES HumRRO research publications and by-products listing for use by personnel concerned with military training		12. SPONSORING MILITARY ACTIVITY Office, Chief of Research and Development Department of the Army Washington, D.C. 20310	
13. ABSTRACT This cumulative bibliography is divided into three main sections: Part I--a separate listing of FY 1966 publications, arranged chronologically first under code name or type of research other than Work Unit, or under a general section, where titles are grouped as to whether they are HumRRO, professional, or military publications or presentations; Part II--a similarly arranged listing of all material ever published by HumRRO, including the titles in Part I as well as current research indicated by the word "ongoing"; Part III--a collection of research by-products such as specific training programs, technical manuals, and training items for new equipment. These are briefly described under research code names or general categories, with citation of publications to which they are related. In addition, there are two appendices: Appendix A, listing the numbered series of reports according to both the current and earlier reporting categories; Appendix B, listing the HumRRO research divisions and all Work Units assigned to them that resulted in at least one publication. An author index is provided as well as an extensive keyword-in-context (KWIC) index.			

14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
Bibliography Psychological Research Human Factors Research Military Training Research Research By-Products Research Publications Research Presentations Field 5						

INSTRUCTIONS

1. **ORIGINATING ACTIVITY:** Enter the name and address of the contractor, subcontractor, grantee, Department of Defense activity or other organization (*corporate author*) issuing the report.

2a. **REPORT SECURITY CLASSIFICATION:** Enter the overall security classification of the report. Indicate whether "Restricted Data" is included. Marking is to be in accordance with appropriate security regulations.

2b. **GROUP:** Automatic downgrading is specified in DoD Directive 5200.10 and Armed Forces Industrial Manual. Enter the group number. Also, when applicable, show that optional markings have been used for Group 3 and Group 4 as authorized.

3. **REPORT TITLE:** Enter the complete report title in all capital letters. Titles in all cases should be unclassified. If a meaningful title cannot be selected without classification, show title classification in all capitals in parentheses immediately following the title.

4. **DESCRIPTIVE NOTES:** If appropriate, enter the type of report, e.g., interim, progress, summary, annual, or final. Give the inclusive dates when a specific reporting period is covered.

5. **AUTHOR(S):** Enter the name(s) of author(s) as shown on or in the report. Enter last name, first name, middle initial. If military, show rank and branch of service. The name of the principal author is an absolute minimum requirement.

6. **REPORT DATE:** Enter the date of the report as day, month, year; or month, year. If more than one date appears on the report, use date of publication.

7a. **TOTAL NUMBER OF PAGES:** The total page count should follow normal pagination procedures, i.e., enter the number of pages containing information.

7b. **NUMBER OF REFERENCES:** Enter the total number of references cited in the report.

8a. **CONTRACT OR GRANT NUMBER:** If appropriate, enter the applicable number of the contract or grant under which the report was written.

8b, 8c, & 8d. **PROJECT NUMBER:** Enter the appropriate military department identification, such as project number, subproject number, system numbers, task number, etc.

9a. **ORIGINATOR'S REPORT NUMBER(S):** Enter the official report number by which the document will be identified and controlled by the originating activity. This number must be unique to this report.

9b. **OTHER REPORT NUMBER(S):** If the report has been assigned any other report numbers (*either by the originator or by the sponsor*), also enter this number(s).

10. **AVAILABILITY/LIMITATION NOTICES:** Enter any limitations on further dissemination of the report, other than those imposed by security classification, using standard statements such as:

- (1) "Qualified requesters may obtain copies of this report from DDC."
- (2) "Foreign announcement and dissemination of this report by DDC is not authorized."
- (3) "U. S. Government agencies may obtain copies of this report directly from DDC. Other qualified DDC users shall request through _____."
- (4) "U. S. military agencies may obtain copies of this report directly from DDC. Other qualified users shall request through _____."
- (5) "All distribution of this report is controlled. Qualified DDC users shall request through _____."

If the report has been furnished to the Office of Technical Services, Department of Commerce, for sale to the public, indicate this fact and enter the price, if known.

11. **SUPPLEMENTARY NOTES:** Use for additional explanatory notes.

12. **SPONSORING MILITARY ACTIVITY:** Enter the name of the departmental project office or laboratory sponsoring (*paying for*) the research and development. Include address.

13. **ABSTRACT:** Enter an abstract giving a brief and factual summary of the document indicative of the report, even though it may also appear elsewhere in the body of the technical report. If additional space is required, a continuation sheet shall be attached.

It is highly desirable that the abstract of classified reports be unclassified. Each paragraph of the abstract shall end with an indication of the military security classification of the information in the paragraph, represented as (TS), (S), (C), or (U).

There is no limitation on the length of the abstract. However, the suggested length is from 150 to 225 words.

14. **KEY WORDS:** Key words are technically meaningful terms or short phrases that characterize a report and may be used as index entries for cataloging the report. Key words must be selected so that no security classification is required. Identifiers, such as equipment model designation, trade name, military project code name, geographic location, may be used as key words but will be followed by an indication of technical context. The assignment of links, roles, and weights is optional.